

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics

1.9  
11-16-37  
11-16-37  
NOV 16 1936

Release to Press and Radio  
according to dates, and  
whether for morning (a.m.) or  
afternoon (p.m.) publication  
as indicated below.

THE AGRICULTURAL OUTLOOK FOR 1936-37

Prepared by the staff of the  
Bureau of Agricultural Economics  
Assisted by Representatives of the Agricultural  
Adjustment Administration, the Extension Service, Bureau of  
Home Economics, and the State Agricultural Colleges and Extension Service  
Washington, D. C. October 26-31, 1936.

| Report                   | Release date<br><u>a.m. or p.m.</u><br>November | Report                      | Release date<br><u>a.m. or p.m.</u><br>November |
|--------------------------|---|-----------------------------|---|
| Demand                   | 6 - a.m.  | Tomatoes                    | 11 - p.m.                                       |
| Agricultural Credit      | 6 - p.m.  | Onions                      | 11 - p.m.                                       |
| Farm Labor, Equip. etc.  | 7 - a.m.  | Watermelons                 | 11 - p.m.                                       |
| Wheat                    | 8 - a.m.  | Truck crops for manufacture | 11 - p.m.                                       |
| Flaxseed                 | 8 - a.m.  | Snap Beans for canning      | 11 - p.m.                                       |
| Cotton and Cottonseed    | 8 - a.m.  | Corn for canning            | 11 - p.m.                                       |
| Feed Crops and Livestock | 7 - p.m.  | Peas for canning            | 11 - p.m.                                       |
| Hay and Pasture          | 11 - a.m.                                       | Tomatoes for Canning        | 11 - p.m.                                       |
| Meat Animals and Meats   | 10 - a.m.                                       | Fruits (general)            | 13 - a.m.                                       |
| Hogs                     | 10 - a.m.                                       | Citrus                      | 13 - a.m.                                       |
| Beef Cattle              | 11 - a.m.                                       | Apples                      | 13 - a.m.                                       |
| Sheep and Wool           | 14 - a.m.                                       | Peaches                     | 13 - a.m.                                       |
| Mohair                   | 14 - a.m.                                       | Pears                       | 13 - a.m.                                       |
| Horses and Mules         | 12 - p.m.                                       | Cherries                    | 13 - a.m.                                       |
| Dairy Products           | 9 - p.m.  | Grapes                      | 13 - a.m.                                       |
| Poultry and Eggs         | 10 - p.m.                                       | Strawberries                | 13 - a.m.                                       |
| Turkeys                  | 10 - p.m.                                       | Tree Nuts                   | 13 - a.m.                                       |
| Clover and Alfalfa Seed  | 12 - p.m.                                       | Peanuts                     | 13 - p.m.                                       |
| Potatoes                 | 11 - p.m.                                       | Dry Beans                   | 12 - p.m.                                       |
| Sweetpotatoes            | 11 - p.m.                                       | Tobacco                     | 13 - p.m.                                       |
| Truck Crops for Market   | 11 - p.m.                                       | Rice                        | 13 - p.m.                                       |
| Cabbage                  | 11 - p.m.                                       | Farm Family Living          | 12 - a.m.                                       |

This mimeographed report is made available for the  
immediate needs of Extension workers. A printed summary of  
this report, for general distribution, will be issued at an  
early date.





## DEMAND AND PRICES FOR 1937

### Summary

The demand for farm products in 1937 will be greater than in 1936. Most of this prospective improvement arises from the expected increase in domestic demand, although some improvement in foreign demand also is anticipated.

Changes in domestic demand for farm products are determined largely by changes in the income of consumers and industrial activity. Industrial production is expected to be about 10 percent higher in 1937 than in 1936. The commodity price level also is expected to be slightly higher. It is probable that the national income will be at least 10 percent higher in 1937 than in 1936.

Improved industrial conditions are noted in some of the important foreign countries which import farm products from the United States. The full benefit of this foreign improvement has not been reflected in exports of American farm products because of the barriers to international trade which have been erected during the past decade and small domestic supplies of some farm products which usually are exported. Recent developments in connection with trade agreements and the indirect effects of devaluation and tentative stabilization of foreign currencies, however, may mark a turning point in the application of restrictions to international trade and have resulted in some improvement in the prospects for larger foreign outlets for American farm products.

Improved demand and shorter supplies of some commodities will result in higher prices for farm products during the first half of 1937 compared with the similar period of 1936. During the latter part of 1937 the increased demand may not be sufficient to offset increased supplies which would follow more favorable weather conditions and the anticipated reactions of producers of some commodities to current high prices for those products. Much of the increase in the level of prices received by farmers relative to the general commodity price level which is characteristic of recovery periods probably has taken place.

While the conditions which will affect the demand for farm products beyond 1937 cannot be definitely indicated, it is expected that the improved demand conditions will continue through the period during which the agricultural production of 1937 is marketed.

### Domestic Demand

The demand for foods is directly dependent upon the purchasing power of consumers, while the demand for industrial raw materials, such as cotton and flaxseed, reflects directly changes in industrial activity and indirectly consumers' incomes.

The purchasing power of consumers may be measured approximately by the "national income paid out" as estimated by the Department of Commerce. The "national income paid out" dropped from \$78,600,000,000 in 1929 to \$44,300,000,000 in 1933, from which low point it has risen to an estimated

\$60,000,000,000 for 1936. An additional increase of about 10 percent is expected in 1937. Industrial production also is expected to be about 10 percent higher in 1937 than in 1936. The commodity price level is expected to rise slightly.

The anticipated increases in industrial activity are mostly in the durable goods industries, which produce relatively longer wearing products such as building materials, steel, machinery, and industrial equipment. Much of the decrease in production, employment, and income which occurred during the depression was in these industries. The production of nondurable goods did not decline so much during the depression, and during the past 3 years has recovered to approximately predepression levels, and is not expected to change much in 1937. Of the important durable goods industries, the most marked recovery to date has been experienced in automobiles, steel, and machine tools. Some additional increase in the output of these products is expected in 1937. Other durable goods industries which are expected to contribute more to the general improvement in business activity in 1937 are building construction and the industries producing equipment for railroads, electric power, and manufacturing. This will stimulate the production of steel and raw materials and contribute to greater activity in many minor fabricating industries.

The increased buying by business firms and individuals, which is expected to result in this further increase in the output of <sup>the</sup> durable goods industries may be financed through the more rapid turnover of existing bank deposits and by further increases in the volume of such deposits. The sale of new capital issues of corporate securities to private and institutional investors whose deposits are now idle, and the more active turnover by business firms of their existing bank deposits would, by itself, without any increase in the aggregate volume of bank deposits, finance a considerable increase in buying. In addition, however, buying power may be further increased by increases in bank loans to customers and by bank purchases of securities - corporate, State, municipal, or Federal. The greater activity of bank deposits and the increase in their volume, brought about in the ways just indicated, may be devoted to the construction of new buildings and the purchase of new equipment to meet obsolescence and for needed expansion in many individual lines of business, which already approached full capacity.

During the recovery which has occurred since early 1933, much of the increase in the volume of money and credit in use has occurred as the result of bank purchases of Government securities which were issued to finance the emergency expenditures of the Federal Government. Bank loans other than those on securities, after declining from late in 1933 to a new low in the summer of 1935, have since risen sharply, and are now at the highest level since the bank holiday.

### Foreign Demand

Industrial activity in foreign countries has been improving steadily since 1932, and this improvement is continuing during 1936 in the more important countries which import farm products from the United States. The improvement has been far from uniform, being most marked in those countries like Japan, the United Kingdom with its dominions, and Sweden, which depreciated their currencies early in the depression. The upward movement of industrial activity abroad has been less marked in countries such as France and the Netherlands which until recently have adhered to the old pre-depression gold standard. Industrial production in the latter countries is but little above its 1932 average. With devaluation of the Gold Bloc currencies an accomplished fact, an appreciable improvement of industrial activity may be looked for even in these countries. In a third group of industrial countries, including Germany and Italy, a marked increase in industrial production has been brought about by special forms of governmental stimulus to industry. The general tendency toward improvement in the economic conditions abroad is being strengthened by recovery in the United States and the accompanying increase in American purchasing power for a number of important staples such as rubber, tin, and silk.

Despite these improvements in industrial activity in foreign countries, there has not been a corresponding increase in the opportunities for other countries, such as the United States, to sell to them. This has been due largely to the existence of severe import restrictions. In 1937 these import restrictions are expected to continue to be more severe than those that prevailed prior to the depression, although there have been some encouraging recent developments looking to the eventual reduction of trade barriers. These trade restrictions were adopted by foreign governments in their efforts to attain economic self-sufficiency, to protect their currency and credit structures, and to resist the downward trend of domestic prices.

Since 1933 world prices have been rising. It may be expected that this upward trend in prices, especially if it should continue for some time, would tend to relax the pressure for high trade restrictions. Recent reductions in tariffs and removal of quotas by France and Italy following the devaluation of the old gold bloc currencies may foreshadow further relaxations of trade barriers. Another influence looking toward the relaxation of trade barriers has been the reciprocal trade agreements program of the United States. Thus far, this program has reduced specified trade restrictions in 14 completed agreements and has also acted as a check to the general world movement toward higher trade barriers. Since agreements have not yet been negotiated with the larger industrial countries of Europe which are our most important foreign markets for agricultural products, prospects for agricultural exports may be expected to improve even more from future agreements than from those already concluded.



Since the first part of 1933, when prices started upward from the low point reached during the depression, prices received by farmers for farm products have risen much more than the general level of commodity prices. From the low of 55 reached in March 1933, the index of prices received by farmers rose to 124 in September 1936 while the index of wholesale prices of all commodities (1910-14 = 100) increased from 88 to 119 and the index of prices paid by farmers for commodities used in living and production rose from 100 to 127. In the latter part of 1936 the ratio of prices received by farmers to prices paid, with 1910-14 as a base, stands at about 98, compared with a ratio of 49 in February 1933. This greater increase in prices received by farmers than in most other prices has been partly a result of the usual factors responsible for such relationships during recovery, partly a result of monetary measures which affected international exchange rates and consequently prices of American farm products entering into international trade, and partly to the drought and agricultural adjustment programs affecting the supply of farm products.

It is probable that a large part of the increase in prices of farm products relative to those of nonagricultural products which ordinarily occurs in periods of recovery already has taken place. In immediately subsequent years the movement of prices of farm products may follow more closely changes in the general price level, but year to year changes will be affected by changes in the supply of farm products, especially those which have been most affected by the droughts of 1934 and 1936. The marketings of farm products except for livestock are likely to be of relatively small volume during the remainder of 1936 and the first half of 1937, with prices of farm products as a whole being maintained at least at present levels. Should crop production in 1937 be more nearly normal, some decline in prices of agricultural commodities is likely to occur during the latter half of the year.

During the past two years there has been a relatively greater increase in the output of finished industrial products than in the level of prices of such products. Much of the increase in the commodity price level which has occurred represented increases in the prices of farm products and raw materials. With the prospect that industrial output in many lines will more nearly approach existing capacity levels in 1937, it seems likely that the increased consumer buying power which is in prospect will be accompanied by a slightly higher level of nonagricultural product prices in 1937 than during the current year. While normal weather may result in increased production and somewhat lower prices for some agricultural products in the latter part of 1937, the possible rise in prices of nonagricultural products and the probable continuance of the present level of prices of agricultural products during the first part of 1937 may result in a slight rise in the average all-commodity price level for 1937.

## Business statistics relating to domestic demand

| Year and month | : Nation-Nonagri: |         | Indus-Building: |         | Factory: |         | Income: |         | Foreign:            |         | All com: |         | Retail: |      | Prices:   |         | Ratio of |         |
|----------------|-------------------|---------|-----------------|---------|----------|---------|---------|---------|---------------------|---------|----------|---------|---------|------|-----------|---------|----------|---------|
|                | al : cultural:    |         | trial : produc- |         | award:   |         | ment :  |         | of in- : dustrial : |         | modity : |         | food :  |      | received: |         | paid by: |         |
|                | income:           |         | income:         |         | income:  |         | income: |         | workers:            |         | prices:  |         | prices: |      | by far-   |         | farmers: |         |
|                | 1/ :              |         | 2/ :            |         | 3/ :     |         | 4/ :    |         | 5/ :                |         | 6/ :     |         | 7/ :    |      | 8/ :      |         | 9/ :     |         |
| Base period:   | 1929              | 1924-29 | 1923-25         | 1923-25 | 1923-25  | 1923-25 | 1923-25 | 1924-29 | 1923-25             | 1923-25 | 1923-25  | 1923-25 | 1910-14 | 1913 | 1910-14   | 1910-14 | 1910-14  | 1910-14 |
| 1929           | 100               | 107     | 119             | 117     | 105      | 105     | 105     | 105     | 136                 | 136     | 139      | 139     | 166     | 146  | 153       | 95      |          |         |
| 1930           | 93                | 100     | 96              | 92      | 92       | 92      | 92      | 87      | 124                 | 124     | 126      | 126     | 158     | 126  | 145       | 87      |          |         |
| 1931           | 73                | 85      | 81              | 63      | 77       | 77      | 77      | 66      | 110                 | 110     | 107      | 107     | 130     | 87   | 124       | 70      |          |         |
| 1932           | 62                | 67      | 64              | 28      | 64       | 64      | 64      | 45      | 97                  | 97      | 95       | 95      | 103     | 65   | 107       | 61      |          |         |
| 1933           | 57                | 63      | 76              | 25      | 69       | 69      | 69      | 46      | 107                 | 107     | 96       | 96      | 105     | 70   | 109       | 64      |          |         |
| 1934           | 64                | 70      | 79              | 32      | 79       | 79      | 79      | 59      | 116                 | 116     | 109      | 109     | 117     | 90   | 123       | 73      |          |         |
| 1935           | 68                | 75      | 90              | 37      | 32       | 32      | 32      | 66      | 124                 | 124     | 117      | 117     | 127     | 108  | 125       | 86      |          |         |
| 1936           | 11/ 76            |         |                 |         |          |         |         |         |                     |         |          |         |         |      |           |         |          |         |
| Jan.           | 79                | 98      | 98              | 61      | 83       | 83      | 83      | 71      | 126                 | 126     | 118      | 118     | 129     | 109  | 122       | 89      |          |         |
| Feb.           | 78                | 94      | 94              | 52      | 83       | 83      | 83      | 70      | 127                 | 127     | 118      | 118     | 128     | 109  | 122       | 89      |          |         |
| Mar.           | 72                | 93      | 93              | 47      | 84       | 84      | 84      | 71      | 130                 | 130     | 116      | 116     | 126     | 104  | 121       | 86      |          |         |
| Apr.           | 79                | 100     | 100             | 47      | 85       | 85      | 85      | 72      | 133                 | 133     | 116      | 116     | 126     | 105  | 121       | 87      |          |         |
| May            | 82                | 101     | 101             | 46      | 86       | 86      | 86      | 74      | 135                 | 135     | 115      | 115     | 127     | 103  | 121       | 85      |          |         |
| June           | 83                | 103     | 103             | 52      | 86       | 86      | 86      | 74      | 131                 | 131     | 116      | 116     | 133     | 107  | 120       | 89      |          |         |
| July           | 82                | 107     | 107             | 59      | 37       | 37      | 37      | 76      | 11/134              | 11/134  | 118      | 118     | 133     | 115  | 11/123    | 93      |          |         |
| Aug.           | 11/ 84            | 11/107  | 11/ 65          | 11/ 65  | 11/ 89   | 11/ 89  | 11/ 89  | 11/ 76  |                     |         | 119      | 119     | 133     | 124  | 11/126    | 98      |          |         |
| Sept.          |                   |         |                 |         |          |         |         |         |                     |         | 119      | 119     | 134     | 124  | 11/127    | 98      |          |         |

1/ Department of Commerce index of "national income paid out", 1929 = 100. Comprises the payments to or receipts by individuals in the form of wages, salaries, interest, dividends, entrepreneurial withdrawals, and net rents and royalties for these services.

2/ Industrial Relations Division of the Agricultural Adjustment Administration, 1924-29 = 100, adjusted for seasonal variation.

3/ Federal Reserve Board index, 1925-25 = 100, adjusted for seasonal variation.

4/ Bureau of Labor Statistics index, 1923-25 = 100, without seasonal adjustment.

5/ Bureau of Agricultural Economics, 1924-29 = 100, adjusted for seasonal variation. Includes factory workers, railroad and mining employees.

6/ Bureau of Agricultural Economics, 1923-25 = 100, adjusted for seasonal variation. Weighted average of index numbers of industrial production for nine foreign countries--United Kingdom, France, Germany, Italy, Japan, Canada, Belgium, Czechoslovakia, and Poland.

7/ Bureau of Labor Statistics index, 1910-14 = 100, without seasonal adjustment.

8/ Bureau of Labor Statistics index, 1913 = 100.

9/ Bureau of Agricultural Economics, August 1909 - July 1914 = 100.

10/ Bureau of Agricultural Economics, 1910-14 = 100.

11/ Preliminary.



## THE CREDIT OUTLOOK FOR 1937

### Summary

Continuation of a plentiful supply of credit for sound agricultural loans at low rates of interest is expected in 1937.

Increased needs for new credit in 1937 will arise in many regions as the result of the drought and the advancing costs of crop production. Feed supplies in drought areas will be short in the first half of 1937. Increased credit advances will be needed for feed purchases and to sustain farm families whose cash crops were a failure, where such needs are not met by various emergency relief funds.

Any increase in the demand for mortgage credit in 1937 will probably arise from the purchase of farms. The demand for emergency refinancing of farm debts probably will continue to decline.

Land values are expected to continue the gradual rise begun in 1933, although farm real-estate taxes are expected to show another slight increase in the coming year.

Interest rates on long-term loans are now the lowest in United States history. The rate for new loans from the Federal land banks is 4 percent and the rates of most other lending agencies have also shown material reductions. The unusually low farm-mortgage interest rates now prevailing make it desirable for farmers who have short-term or high-interest-rate mortgage loans to refinance such loans on a long-term basis.

The Resettlement Administration program provides funds for making agricultural rehabilitation loans through the first half of 1937.

New credit facilities to be available during 1937 will include two types of commodity credit corporation loans on the security of stored seed corn: \$1.75 per bushel on selected seed corn, and 55 cents per bushel for cribbed field corn which might be sorted for seed at a later date.

### Short-term Credit Demands Vary

State banking officials in most parts of the country report an increase in the volume of new bank loans to farmers, and further increases are in prospect for 1937. Moderate increases in short-term borrowing will result from replacements and additions to farm machinery and equipment, from improvements of buildings and fences, and from the high cost of feeds. But as farmers in areas not severely affected by drought received greater income in 1936 than for several years, this will have a moderating influence upon their need for new loans.

Although fall rains have revived pastures in many of the drought areas, there will be an abnormal need for funds to buy feed for livestock and to maintain farm families whose cash crops failed, but this need may partly be met from emergency relief funds. The drought areas will need credit to replace livestock sold because of feed shortage.



Grant Payments Decrease Credit Needs

The credit needs of farmers will be affected by the disbursement of grant payments under the Agricultural Conservation program and final payments being made by the Agricultural Adjustment Administration. It is estimated that during the last quarter of 1936, approximately 100 million dollars will be distributed as final payments on Adjustment contracts. The amount of these contracts, by commodities, is approximately 54 million dollars for wheat, 24 million dollars for corn-cobs, 13 million for sugar, 5 million for tobacco, 2 million for cotton, and the balance for miscellaneous payments.

Grant payments to be made to farmers who have met the farming practice requirements for participation in the Agricultural Conservation program for 1936 will be made soon after the receipt of completed forms on which payments are determined. Disbursements are expected to reach the total of 470 million dollars provided by Congress for this purpose. Some of these grant payments will be made during the last quarter of 1936, but apparently the large volume of disbursements will be made during the first quarter of 1937. A substantial number of farmers who did not cooperate in the programs formulated under the Agricultural Adjustment Act will receive grant payments for their participation in the Agricultural Conservation program of 1936, which is more generally applicable. It is estimated that the number of grant payments to farmers may approximate 6 million.

Reserves of Country Banks Ample

Increasing proceeds from the sale of crops and livestock, combined with benefit and grant payments to farmers under the Agricultural Adjustment and Agricultural Conservation programs, have substantially increased farmers' incomes from the low levels of 1932 and 1933. With their increased incomes farmers are now able to pay operating expenses and make improvements and additions to their properties to a larger extent than formerly without borrowing. Moreover, farmers' deposits at banks are increasing rapidly. Demand deposits of Federal Reserve member banks located in places of less than 15,000 population are now at levels approximating those of 1929. (Chart 1.) Although farmers' deposits at banks of all kinds are not so large as they were in 1929, the high present level of deposits in member banks signifies that the deposit accounts of farmers have risen far above the low levels of 1932 and 1933. It is probable that the increase of deposits which has been under way since the early months of 1933 will continue through 1937.

Notwithstanding a moderate increase in the volume of new loans made by banks during the last year, the total outstanding loans of banks to farmers decreased. (Table 1.) This was due to the extensive liquidation of old loans through payments and refinancing, which more than offset the new loans made by banks, to a decreased need for credit incident to reduced production, and to the availability to farmers of credit from Federal agencies. Country banks now possess reserves which would permit of a much larger volume of loans and investments than they now hold, despite the recent increase in reserve requirements for Federal Reserve member banks.



Credit--3.

Table 1.--Estimated farmers' personal and collateral loans from commercial banks outstanding in stated years 1/

| Year       | : 1,000 dollars | : Year       | : 1,000 dollars   |
|------------|-----------------|--------------|-------------------|
| 1914 ..... | 1,807,970       | : 1931 ..... | 1,936,360         |
| 1918 ..... | 2,506,814       | : 1934 ..... | 807,613           |
| 1920 ..... | 3,869,891       | : 1936 ..... | 660,717 <u>2/</u> |
| 1923 ..... | 2,943,818       | : .....      | :                 |

1/ Data relate to end of year indicated except for 1914, 1918, 1931, and 1936. Data for 1914 relate to the spring of 1914; data for the other 3 years relate to the midyear.

2/ Preliminary.

#### Short-term Loans Through Farm Credit Administration

During the first 8 months of 1936 short-term credit extended to farmers by institutions now operating under the Farm Credit Administration totaled approximately 250 million dollars as compared with 330 million dollars during the corresponding period of 1935. (Table 2.) The decrease from 1935 to 1936 in the volume of credit extended by these institutions is accounted for by further progress in the orderly liquidation of the regional agricultural credit corporations and by the reduced volume of emergency crop loans during 1936. On the other hand, the volume of loans through the production credit associations, of which there are about 550 in the United States, continued to increase during 1936 and accounted for approximately 58 percent of the short-term credit extended to farmers by the four institutions shown in table 2. The total volume of credit outstanding for these four types of loan agencies as of August 31, 1936, was 332 million dollars, or approximately 25 million dollars less than a year ago.

Table 2.--Short-term credit advanced to farmers by institutions now operating under the Farm Credit Administration  
January through August 1934, 1935, and 1936

| January through August | : Production credit associations: | Regional agricultural credit corporations | : Other <u>1/</u> financing institutions: | : Emergency crop loans | : Total         |
|------------------------|-----------------------------------|---|---|------------------------|-----------------|
|                        | : 1,000 dollars                   | : 1,000 dollars                           | : 1,000 dollars                           | : 1,000 dollars        | : 1,000 dollars |
| 1934                   | : 65,353                          | : 95,216                                  | : 72,432                                  | : 31,776               | : 264,782       |
| 1935                   | : 132,424                         | : 71,119                                  | : 73,915                                  | : 55,652               | : 333,170       |
| 1936                   | : 145,465                         | : 26,203                                  | : 64,853                                  | : 13,134               | : 249,655       |

1/ Federal intermediate credit bank loans to and discounts for such institutions.

Farm Credit Administration - Division of Finance and Research.

Credit--4.

The decline in emergency loans made by the Farm Credit Administration is explained mainly by the transfer to the Resettlement Administration of the principal responsibility for meeting the emergency and rehabilitation needs of farmers. During the first 8 months of 1935 the Farm Credit Administration loaned approximately 94 million dollars to farmers for emergency crop and drought relief purposes. In the first 8 months of 1936 the amount loaned for these purposes was only 13 million dollars. This decrease, however, was almost exactly offset by the loans of the Resettlement Administration, which totaled nearly 80 million dollars during the first 8 months of 1936.

#### Credit Through The Resettlement Administration

During the year ended July 1, 1936, the Resettlement Administration made advances to 536,000 farm families who received loans or grants. Commitments on Rural Rehabilitation loans to farmers amounted to 85 million dollars, of which 77 million dollars were certified at the close of the year. During the same period approximately 17 million dollars were advanced as grants to farmers who were unable to qualify for additional credit accommodation at any other agency. Other short-term production credit was advanced to farmers by State rehabilitation corporations which loaned over 4 million dollars during the year ended June 30, 1936. Of the 85 million dollars Resettlement Administration commitments, 41 million dollars were loaned in the Southern States. During the period from July 1, 1936 to October 12, 1936, supplementary loans and emergency drought loans approximated 5 million dollars and drought grants 3 million dollars. The total loans made include numerous advances to cooperative enterprises of low income farmers who could not finance these joint enterprises by other means.

For the fiscal year July 1, 1936 to June 30, 1937, Resettlement Administration program provides 80 million dollars for rehabilitation loans and grants, and for advances by State rehabilitation corporations, of which amount to date 22 million dollars have been made available for loans and 7 million dollars for grants.

Since it is the policy of the Resettlement Administration not to lend funds to clients who are able to obtain credit elsewhere, the cases assisted by this agency are those who otherwise would be without credit for their farming operations. It is therefore expected that Resettlement farm credit activities during the coming season, as during the past year, will reach substantial numbers of marginal farmers who otherwise would be without necessary credit accommodation.

The outstanding short-term loans to farmers by all Federal agencies are shown in table 3.

Table 3.--Outstanding short-term loans to farmers by Federal agencies

|               | Mainly for<br>crop and livestock production    |   |  |                  | Mainly for emergency or:<br>rehabilitation purposes:     |  |                  |                                  |
|---------------|--|---|--|------------------|--|--|------------------|----------------------------------|
| Dec.<br>31,   | Produc-<br>tion<br>credit<br>associ-<br>ations | Region-<br>al ag-<br>ricul-<br>tural<br>credit<br>corpo-<br>rations | 1/<br>Other<br>finan-<br>cing<br>insti-<br>tutions | Total            | Farmers<br>seed<br>loan<br>office<br>and<br>F.C.A.<br>2/ | Re-<br>settle-<br>ment<br>Admini-<br>stra-<br>tion<br>3/ | Total            | Total<br>short-<br>term<br>loans |
|               | 1,000<br>dollars                               | 1,000<br>dollars  | 1,000<br>dollars                                   | 1,000<br>dollars | 1,000<br>dollars   | 1,000<br>dollars   | 1,000<br>dollars | 1,000<br>dollars                 |
| 1929          | .....  | .....   | 50,018   | 50,018           | 4/ 6,924   | .....  | 6,924            | 56,942                           |
| 1930          | .....  | .....   | 65,633   | 65,633           | 4/ 7,894   | .....  | 7,894            | 73,527                           |
| 1931          | .....  | .....   | 74,691   | 74,691           | 48,717   | .....  | 48,717           | 123,408                          |
| 1932          | .....  | 24,373  | 82,518   | 106,891          | 89,301   | .....  | 89,301           | 196,192                          |
| 1933          | .....  | 27,144  | 144,636  | 60,989           | 205,652  | 89,810   | .....            | 89,810                           |
| 1934          | .....  | 60,852  | 87,102   | 55,672           | 203,626  | 110,186  | .....            | 110,186                          |
| 1935          | .....  | 94,096  | 43,400   | 46,490           | 183,986  | 5/ 171,823   | 5/ 7,907         | 5/ 179,730                       |
| June 30, 1936 | .....  | 139,468   | 36,026   | 53,231           | 228,725  | 5/ 175,623   | 5/ 81,607        | 5/ 257,467                       |

1/ Federal intermediate credit bank loans to and discounts for such institutions.

2/ Includes seed, feed, and drought loans made under various appropriations.

3/ Gross loans made. Payments believed to be small.

4/ June 30 balances. Figure for 1921 is an estimate based on amount of loans made during 1921 to June 30.

5/ Contains an unknown amount of loans that do not have short maturities

#### Farm-Mortgage Credit

Institutions operating under the Farm Credit Administration have been the major source of farm mortgage credit since 1933. This emergency refinancing program has brought a marked shift of loans from other agencies. (Chart 2.)

The bulk of the emergency refinancing of farm mortgages by the Farm Credit Administration has apparently been completed. The number of pending applications for loans at offices of the Farm Credit Administration has been reduced by more than 50 percent since the beginning of 1936 and to less than one-sixteenth of the peak level of 1933. The number of new applications received has declined to approximately 7 thousand per month as compared with 15 thousand per month a year ago and a peak of 75 thousand per month during the latter months of 1933. The declining demand for farm-mortgage credit is also indicated by the fact that the volume of new loans by the Federal land banks and the Land Bank Commissioner, during the first 8 months of 1936 totaled only \$58,821,000 as compared with \$334,426,000 in the comparable period of last year.

Some increases in the volume of mortgage credit for the financing of sales and transfers of farm real estate during the coming year may reasonably be expected. During 1936 there has been increased use of Federal land bank and Land Bank Commissioner loans for the purchase of farms. During the first 6 months of 1936, loans made by these two sources for the purchase of farms, including contracts for the sale of acquired lands, averaged 5.2 million dollars per month as compared with 3.1 million dollars per month in the period May 1933 - December 1934.

#### Farm Real Estate Values Continue to Rise

Farm real estate values have risen approximately 4 percent each year for the last 3 years, and, as of March 1, 1936, were about 12 percent above the depression low. The volume of voluntary sales of farm real estate for the country as a whole during the year ending March 15, 1936 increased for the fourth successive year and reached levels approximately equalling those prior to the depression. The upward trend in farm income combined with low interest rates and less burdensome farm real estate tax levels, together with a reduced number of farm foreclosures, tend to encourage a continuation of the upward trend in farm real estate values and in the number of farm transfers. The effects of these factors are offset in part, however, by the large number of farms held for sale by creditor agencies. Such agencies constitute the largest group of sellers at present.

#### Farm Mortgages as an Investment

That agencies other than those Federally sponsored are again becoming interested in farm mortgages indicates renewed confidence in farm mortgages as an investment. Commercial banks, after several years of declining farm mortgage loans, showed the first increase in the volume of such loans in their Call Report of June 30, 1936. Reports taken from county records also show a substantial increase during the last 2 years in the amount of farm mortgages recorded by insurance companies and individuals, although the total volume of their new loans is still at a relatively low level. For the 8 months ending with August 1936 the estimated total volume of farm mortgages recorded by other than Federally-sponsored mortgage lending institutions was 6 percent larger than a year ago and 34 percent larger than 2 years ago. (Table 4.) A considerable portion of such loans also represents financing in connection with the sale of acquired farm properties.



Credit--7.

Table 4.--Estimated amount of farm mortgages recorded in the United States  
by type of lender  
January through August 1934, 1935, and 1936

| Type of lender                      | Millions of dollars |       |       | Percent of total |       |       |
|-------------------------------------|---------------------|-------|-------|------------------|-------|-------|
|                                     | 1934                | 1935  | 1936  | 1934             | 1935  | 1936  |
| Federal land banks <u>1/</u> . . .  | 558.3               | 184.6 | 82.7  | 43.9             | 25.7  | 15.1  |
| Land Bank Commissioner <u>1/</u> :  | 410.6               | 148.8 | 58.5  | 32.2             | 20.8  | 10.7  |
| Individuals <u>2/</u> . . . . .     | 148.1               | 178.0 | 169.1 | 11.6             | 24.8  | 30.9  |
| Commercial banks <u>2/</u> . . . .  | 72.4                | 108.8 | 120.6 | 5.7              | 15.2  | 22.0  |
| Insurance companies <u>2/</u> . . . | 26.9                | 48.7  | 73.0  | 2.1              | 6.8   | 13.3  |
| Other lenders <u>2/</u> . . . . .   | 57.0                | 48.0  | 43.9  | 4.5              | 6.7   | 8.0   |
| Total . . . . .                     | 1,273.3             | 716.9 | 547.8 | 100.0            | 100.0 | 100.0 |

1/ Actual loans closed, exclusive of Puerto Rico.

2/ Estimates based on reports from approximately 40 percent of the counties in the United States.

Farm Credit Administration - Division of Finance and Research.

Loans for the renewal or refinancing of existing debts are included in farm mortgages recorded, and, to that extent, recordings do not represent additions to the outstanding debt. These data, however, indicate the trend in the extent to which various lending institutions are making their mortgage credit facilities available to farmers, either through renewal of existing mortgages at maturity or through the actual making of new loans.

#### Collections Increase

With the continued improvement in farm income there has been a further reduction in the volume of delinquent farm mortgages. This is indicated by the experience of the Federal land banks. On June 30, 1936 all matured installments were paid in full on 75 percent of their outstanding loans as compared with 64 percent a year earlier and 38.8 percent 2 years ago. Federal land bank collections have been relatively highest in the New England and Middle Atlantic States and lowest in the North Central States.

#### Interest Rates Are Lowest in History

Farmers who now have mortgages bearing a higher rate of interest can materially reduce the carrying charges on their mortgages by refinancing them on a long-time maturity basis. It is unlikely that there will be further appreciable decline in mortgage interest rates, and there is a prospect that in the next year or two the trend may be upward. A long-term loan obtained at the present low rates insures the borrower against higher interest costs during the term of that loan.

Farm Real Estate Taxes

A slight increase in farm real estate taxes appears probable in 1937. A preliminary estimate a year ago indicated approximately the same tax per acre for the 1934 and 1935 levies, but it now appears that a slight increase of between 2 percent and 4 percent occurred for the country as a whole between those 2 years. A similar slight increase is now estimated between 1935 and 1936.

The increase in taxes from 1934 to 1935 brought to an end the period of sharply declining taxes per acre that prevailed from 1929 to 1934. This series of years marked the only significant drop in farm real estate taxes per acre in the period beginning with 1890, the earliest year for which comprehensive data are available. During this period of declining taxes, however, farmers helped to pay other new taxes in addition to real estate levies, and still have to pay taxes that are delinquent from earlier years. From 1929 to 1934 the decrease in tax per acre was 36 percent, but in the latter year such tax was still 54 percent above the 1913 level.

THE OUTLOOK FOR FARM LABOR, EQUIPMENT, FERTILIZER, ETC.  
FOR 1937

Summary

The average price of commodities and services used in agricultural production will average a little higher next year. Wage rates will rise with a continuance of the upward trend in the demand for workers in nonagricultural activities, and with the greater demand for hired farm workers that is likely to result from more nearly normal crop and livestock production. Prices paid by farmers for seed have already advanced sharply as a result of drought-restricted supplies and will continue at relatively high levels during the 1937 spring planting season.

Feed prices will be materially higher than in 1936 during the first half of the coming year, or until the harvest of the 1937 crop replenishes the present drought-reduced supplies. Prices of other items used in production are expected to differ but little from the 1936 levels, although the prospective general upturn in the cost of materials and labor entering into the expense of manufacturing farm machinery, fertilizer, and building supplies may result in slight advances in local market prices for these items.

Farm Labor and Wage Rates

Farm wage rates will continue in 1937 the slow rise of the last 3 years due to an increase in both the nonagricultural and agricultural demand for labor. Further upturns in off-the-farm employment are expected to accompany a slight increase in business activity. A more normal growing season in 1937 would also increase the demand for hired workers on farms. The farm-labor supply will continue to decrease as the nonagricultural activities of the nation absorb more workers.

Farm wage rates for the past year have kept slightly above the level of pre-war rates on the whole. The index on October 1, 1936, at 110 was the highest for that date since 1931. The index of industrial wage rates, however, was nearly double pre-war rates on October 1. Although a part of the difference between agricultural and industrial wage rates is offset by the value of board, lodging and other perquisites received by farm workers, the higher money rates in industry are bound to attract labor from farms whenever employment opportunity is offered.

Farm Wage Rates  
(Per month with board)

| State | Jan. 1  | Apr. 1  | July 1  | Oct. 1  |
|-------|---------|---------|---------|---------|
|       | Dollars | Dollars | Dollars | Dollars |
| 1933  | 14.77   | 14.67   | 15.84   | 17.19   |
| 1935  | 17.04   | 19.11   | 20.41   | 20.57   |
| 1936  | 18.54   | 20.89   | 22.07   | 22.51   |

The reported demand for farm labor in October 1936 was slight above that of a year earlier despite the drought-reduced harvests. In the South Central States, where a larger cotton crop was picked than in 1935, it was more than 13 percent higher. Only the West North Central States showed a decline in the demand for farm labor from October 1935 to October 1936. As in 1934, the decline was due to the severe drought in that region.

The reported supply of farm labor has decreased somewhat in every geographic division of the country, and on October 1 the percentage decline from a year earlier varied from 5 percent on the Pacific Coast to 13 percent in the West South Central and Middle Atlantic States.

The supply of farm labor was 102.5 percent of demand for the country as a whole on October 1. This was 13 percent less than a year before. The falling off was evident in every part of the United States except in the West North Central States. There supply had fallen slightly, but demand had dropped much more as a result of drought-cut labor requirements. The supply of farm labor in October 1935 was everywhere at least 5 percent greater than demand. As a result of increased nonagricultural employment, it was reported below demand in all regions except the West Central and Rocky Mountain States on October 1, 1936. In these geographic divisions supply was reported to be still above demand, particularly in the West North Central States where the excess amounted to as much as 34 percent. Farmers have made numerous complaints as to the shortage of labor in other sections of the country, but as yet there is apparent no marked advance in prevailing wage rates.

### Building Materials

If the increase anticipated in building activity during the coming year is realized, it doubtless will be accompanied by a slight increase in the prices paid by farmers for building materials. Building material prices were steady to slightly higher at local farm markets in 1936 as compared with 1935. During the last few months wholesale prices of building materials have risen slightly. As changes in wholesale building material prices usually precede changes in prices paid by farmers by several months, these increases probably will not be fully reflected in prices paid by farmers until the first part of 1937. There is yet, however, no indication of a substantial upward change in prices.

Prices Paid by Farmers for Building Materials Used in Production  
(Average 1910-14 = 100)

| Year           | March | June | September | December |
|----------------|-------|------|-----------|----------|
| 1935 . . . . . | 143   | 145  | 146       | 145      |
| 1936 . . . . . | 145   | 147  | 146       |          |



### Farm Machinery and Equipment

Farm machinery prices during 1937 are expected to remain at approximately the 1936 levels. Any change will be upward, because of the upward trend in prices of labor and materials and other costs. Wholesale prices of tractors have advanced slightly since 1933, but remain considerably below the 1926 average.

Manufacturers' sales of farm machinery during 1936 will exceed those of any prior year since 1930. Sales of general-purpose tractors and of machinery for use with them doubtless will exceed those in 1930. Production and sales of farm machinery during 1937 will probably exceed those in 1936 and equal the 1925-29 average especially if crop conditions are more nearly normal.

New types of equipment recently placed on the market are particularly adapted to farms east of the Missouri River. Small tractor-operated combines, which cut 5 to 6-foot swaths, and general purpose tractors were sold in larger numbers in this region during 1936 than heretofore. This trend is likely to continue although field work on farms in these States probably will never be as completely mechanized as on the Great Plains.

The electrification of farms in the United States continued to show marked progress during the first half of 1936. According to the Edison Electric Institute, more farms were connected with electric lines during the first 6 months of 1936 than in any 12-month period since 1929. Should this progress continue, 1,000,000 high-line electrified farms may be expected by the end of 1937.

### Fertilizer

During 1937 prices paid by farmers for fertilizer will probably average somewhat higher than in 1936, but not greatly different from the 1910-14 average. The total sales of fertilizer during the 1936-37 season will probably be considerably larger than in 1935-36 and the largest since 1929-30.

The 1936 drought was most serious in the area where only a small part of the total fertilizer tonnage is used. In the most important fertilizer-consuming areas, 1936 crops were fairly good and prices for these crops have been the highest in several years. Prices of farm products generally are the highest since 1930, and have risen in relation to the retail prices of fertilizer. A continuance of this situation will stimulate fertilizer consumption in the coming year.

Wholesale prices of fertilizer material in the third quarter of 1936 averaged about 4 percent higher than in the same period of 1935. Prices of superphosphate were slightly lower. Prices of inorganic ammoniates and potash salts were somewhat higher than a year earlier. Prices of organic ammoniates in the third quarter of 1936 were 43 percent higher than a year ago, and were nearly as high as in the pre-depression period 1926-28. The rise in wholesale prices of fertilizer material in the last year and the prospects for a considerable increase in the fertilizer tonnage are likely to result in some increase in the retail prices of fertilizer for 1937 as compared with 1936.



## THE WHEAT OUTLOOK FOR 1937

### Summary

A wheat crop considerably in excess of domestic needs will be produced in the United States in 1937 and prices will decline toward an export basis, if near-normal yields are obtained on prospective acreage. The acreage seeded to wheat for the 1936 crop was the second largest acreage on record. With higher prices than at seeding time last fall and sufficient moisture for seeding and germination over practically all of the winter wheat area, it seems likely that the 1937 wheat acreage will be at least as large as that of 1936. If such turns out to be the case, production will exceed average domestic utilization unless growing conditions are so unfavorable as to reduce yields 25 percent or more below average. There is nothing in the present situation that indicates so great a reduction in yields although fall moisture supplies do suggest that yields may be slightly below average if normal weather conditions prevail during the remainder of the 1937 crop season. Largely as the result of abnormally low per-acre yields during the last 3 years, domestic wheat prices have been unusually high relative to "world market" prices.

The closer adjustment of world supplies to prospective requirements, which has taken place in the last few years, has resulted from a series of unfavorable crops in important surplus producing countries, largely as a result of drought, rather than from a curtailment of acreage. If production in 1937-38 is again small enough to only about offset the prospective decline in carry-over stocks during the current season, world prices would be expected to remain at high levels. If on the other hand, near average per-acre yields are obtained, production would likely be in excess of the prospective world requirements and result in lower world prices. The present world acreage is so large that over a period of years average per-acre yields would again result in large world surpluses.

Total supplies of wheat in the United States for the 1936-37 season are large enough for the usual domestic requirements, but supplies of hard red spring wheat and durum are short. In spite of record seedings, the production of hard red spring wheat and durum was small owing to the drought which reached its greatest intensity in the hard red spring and durum wheat area. The domestic hard winter wheat crop is materially larger than last year. This class, as well as white wheat in the Pacific Northwest, is of good quality. It is expected that mills ordinarily using spring wheat will use a larger percentage of these two kinds of wheat than last year. A larger than usual quantity of soft red winter wheat is also likely to be used in bread flour. As a result, net imports are expected to be less than in 1935-36.

### Domestic Prospects for 1936-37

Domestic wheat supplies in the 1936-37 season will more than take care of usual domestic requirements of soft red, white and hard red winter wheat, but supplies of hard red spring and durum will again be below our normal minimum milling needs. Preliminary estimates of the prospective supplies of wheat by classes for 1936-37, together with supply and distribution for 1935-36, are shown in table 1.

The shortage of hard red spring wheat will partially be taken care of by the excess of hard red winter wheat over average requirements and a greater use of soft red and white wheats in bread flour. This year's crops of hard red spring and durum wheats were of better quality than last year's crops, but because of shrivelled condition, are still below normal in milling yields. Substitution of other kinds of wheat for durum is unsatisfactory. If a minimum utilization of 20,000,000 bushels and minimum carry-over of 5,000,000 bushels is assumed, a deficit of about 8,000,000 bushels of durum is indicated.

Domestic utilization for 1936-37 is estimated at about 660,000,000 bushels. Exports are expected to be between 10,000,000 and 15,000,000 bushels, mostly from the Pacific Northwest, compared with 7,000,000 bushels in the 1935-36 season. If the prospective deficits of hard red spring and durum wheat for milling and seed are taken care of by imports, and imports of "wheat unfit for human consumption" are somewhat smaller than last year's 9,000,000 bushels, total net imports would reach about 25,000,000 bushels compared with 28,000,000 bushels last year. This would leave a carry-over on July 1, 1937 of about 130,000,000 bushels.

Table 1.- Wheat: Supply and distribution, 1935-36 and supply, 1936-37, by classes

| Item               | : Hard<br>: red<br>: winter | : Soft<br>: red<br>: winter | : Hard<br>: red<br>: spring | : Durum                | : White                | : Total                |
|--------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|------------------------|------------------------|
|                    | : Million<br>: bushels      | : Million<br>: bushels      | : Million<br>: bushels      | : Million<br>: bushels | : Million<br>: bushels | : Million<br>: bushels |
| 1935-36 -          |                             |                             |                             |                        |                        |                        |
| Stocks, July 1 ... | 67                          | 32                          | 26                          | 5                      | 16                     | 146                    |
| Production .....   | 203                         | 204                         | 107                         | 24                     | 85                     | 623                    |
| Imports .....      | ---                         | ---                         | 31                          | 4                      | ---                    | 35                     |
| Total supply ...   | 270                         | 236                         | 164                         | 33                     | 101                    | 804                    |
| Exports 1/ .....   | 3                           | ---                         | ---                         | ---                    | 4                      | 7                      |
| Disappearance ...  | 217                         | 209                         | 129                         | 25                     | 80                     | 660                    |
| 1936-37 -          |                             |                             |                             |                        |                        |                        |
| Stocks, July 1 ... | 50                          | 27                          | 35                          | 8                      | 17                     | 137                    |
| Production 2/ ...  | 360                         | 207                         | 52                          | 9                      | 99                     | 627                    |
| Total supply 3/    | 310                         | 234                         | 87                          | 17                     | 116                    | 764                    |

1/ Include flour in terms of wheat.

2/ October estimate.

3/ Without imports.



The Wheat outlook for 1937 - 3.

With short supplies of hard red spring and durum wheat again being supplemented this year by imports from Canada, prices of these two classes during the 1936-37 season -- at least until the new crop prospects become the dominant price factor -- will continue to be largely influenced by conditions which also influence the price in Canada. Prices of other classes will be affected but to a smaller degree. The price of hard red winter wheat will benefit most because such wheat can be substituted directly for hard red spring, whereas only limited quantities of soft wheats can be substituted for hard red spring wheat in the making of flour for commercial bread baking. Although supplies of soft wheat have been ample for domestic needs even during the last 2 years, the prices of soft wheats also benefited from an increased demand caused by the shortage of hard wheat. Though hard wheat supplies have been short east of the Rockies, a surplus of soft wheat has persisted in the Pacific Northwest.

World Prospects in 1936-37

Total world supplies of wheat in 1936-37, excluding Russia and China, show a decline of approximately 295,000,000 bushels compared with 1935-36. The reduced supplies are a result of a very short crop in North America and North Africa and a general reduction in stocks in nearly all countries. Exports from Russia appear unlikely but imports into China will be smaller than last year. Production in 1936-37 is the smallest since 1925 and stocks on July 1, 1937 are expected to be the smallest since about 1927.

Table 2.- Wheat: World supply and distribution in selected years, excluding Russia and China

| Item                    | : 1923-24 : | :           | :           | :           | :           |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
|                         | : to :      | : 1933-34 : | : 1934-35 : | : 1935-36 : | : 1936-37 : |
|                         | : 1927-28 : | : 2/ :      | :           | :           | :           |
|                         | : 1/ :      | :           | :           | :           | :           |
|                         | : Million   | Million     | Million     | Million     | Million     |
|                         | : bushels   | bushels     | bushels     | bushels     | bushels     |
| Carry-in stocks .....   | 641         | 1,142       | 1,167       | 920         | 747         |
| Production .....        | 3,439       | 3,809       | 3,514       | 3,553       | 3,452       |
| Exports from Russia ... | 20          | 34          | 2           | 29          | 0           |
| Total supply .....      | 4,100       | 4,985       | 4,683       | 4,502       | 4,179       |
| Carry-out stocks .....  | 676         | 1,167       | 920         | 747         |             |
| Disappearance .....     | 3,424       | 3,818       | 3,763       | 3,755       |             |

1/ Average before accumulation of burdensome surpluses.

2/ In 1933 world wheat supplies were the largest on record.

Smaller supplies in 1936-37 are reflected in a world level of wheat prices materially higher than in 1935-36. The absence of large carry-over stocks points to the probability that wheat prices during the remainder of the season will be much more sensitive to new crop developments than has been the case in recent years.

World shipments of wheat during 1936-37 are estimated at about 515,000,000 bushels compared with actual shipments of 489,000,000 bushels from July through June in 1935-36. The increase in imports is expected to result from smaller crops and lower stocks in the importing countries and the improved business outlook in Europe, particularly as a result of the recent devaluation of currencies and reduction in import duties on the part of Gold Bloc countries. It is expected that most of the increase in European takings will be supplied by Danubian countries, which produced a very large surplus. Import requirements in the three oriental countries China, Japan, and Manchuria are expected to be substantially smaller than in 1935-36.

The quality of the wheat crop in North America this year is decidedly better than a year ago. The quality of the European wheat crop, on the other hand, is much poorer as a result of unfavorable weather at harvest time. But, with the exception of one or two countries, the damage is hardly sufficient to play an important part in determining the quantity of wheat imported.

#### Domestic Prospects for 1937-38

The acreage seeded to wheat for the 1936 crop was the second largest on record. With higher prices than at seeding time last fall and sufficient moisture for seeding and germination over practically all of the winter wheat area, it seems likely that the 1937 wheat acreage will be at least as large as that of 1936. Average yields on such an acreage would produce a crop in 1937 far in excess of average domestic utilization. Moreover, if the 1937 acreage is about equal to that of 1936, production will exceed average domestic utilization unless growing conditions are so unfavorable as to reduce yields 25 percent or more below average.

There is nothing in the present situation that indicates such a reduction in yields next year, although fall moisture supplies do suggest that yields may be slightly below average 1/ if normal weather conditions prevail during the remainder of the 1937 crop season.

Spring wheat producers will want to consider the development of the winter wheat crop in formulating their acreage plans for 1937. If, at spring wheat seeding time, the winter wheat crop still gives promise of average or near average yields, prices for the 1937 crop may be expected to be materially lower than during the past 3 years, when production was less than domestic utilization. Under such conditions, many spring wheat growers who are in a position to plant flax will undoubtedly find that crop an attractive alternative. If, on the other hand, the winter wheat crop appears to be headed for a fifth year of low yields, prices may be expected to be somewhat comparable to those of the current season.

---

1/ Seeded acreage and crop condition of winter wheat will be reported on December 21.

# The wheat outlook for 1937 - 5

For the long-time outlook, however, there can be little question but that yields will approximate the average of past years and that the present acreage will produce, on the average, quantities considerably in excess of usual domestic utilization. If the 1936 total acreage of 74,500,000 acres is maintained, average (1925-34) yields (11.8 bushels per seeded acre) would result in a production of 880,000,000 bushels, which is about 225,000,000 bushels greater than our annual domestic disappearance. The average acreage in the 1929-33 period was 66,850,000 acres.

Lower prices emphasize the importance of quality in obtaining better than average returns. Causes of low-grade wheat, such as garlic, smut, high foreign material content, and mixtures of classes, can be largely avoided by the use of clean, pure, treated seed and proper cultural and grain-handling methods on the farm.

Table 3 shows the prices of wheat at Liverpool and at important domestic markets for the 1923-24 to 1927-28 period, when the United States was exporting wheat and before the large surpluses accumulated, and prices for the last 3 years when we have been either on a domestic or import basis. No. 1 Hard Amber Durum at Minneapolis (price adjusted for changing price level) averaged 47 cents higher in the last 3 crop years relative to Liverpool than it did in the 5 years ended in 1927-28; No. 1 Dark Northern Spring at Minneapolis and No. 2 Hard Winter at Kansas City averaged 34 and 31 cents higher, respectively; No. 2 Red Winter at St. Louis and No. 1 Soft White at Portland averaged 22 cents and 16 cents, respectively, higher.

If the United States should produce a surplus large enough to place the country on an export basis in 1937-38 and if production should be normally distributed so that there would not be a shortage in any one class of wheat, it is reasonable to assume that more nearly normal price relationships would ensue.

Table 2.- Wheat: Average annual prices at Liverpool and important domestic markets for recent years

| Item                                 | Average: |          |          |          |         |
|--------------------------------------|----------|----------|----------|----------|---------|
|                                      | 1923-24: | 1932-33: | 1933-34: | 1934-35: | 1935-36 |
|                                      | to       | :        | :        | :        | :       |
|                                      | 1927-28: | :        | :        | :        | :       |
|                                      | Cents    | Cents    | Cents    | Cents    | Cents   |
|                                      | per      | per      | per      | per      | per     |
|                                      | bushel   | bushel   | bushel   | bushel   | bushel  |
| Liverpool, parcels .....             | 156.0    | 53.8     | 68.2     | 80.6     | 90.0    |
| Kansas City, No. 2 Hard Winter ...   | 134.7    | 50.9     | 88.5     | 98.1     | 105.1   |
| Minneapolis, No. 1 Dark Northern     |          |          |          |          |         |
| Spring .....                         | 147.8    | 60.8     | 91.3     | 116.4    | 126.0   |
| Minneapolis, No. 2 Hard Amber Durum: | 138.4    | 58.4     | 103.2    | 137.7    | 112.8   |
| St. Louis, No. 2 Red Winter .....    | 144.4    | 55.2     | 94.3     | 93.9     | 94.9    |
| Portland, No. 1 Soft White .....     | 135.2    | 52.1     | 75.4     | 83.9     | 82.9    |

World Prospects in 1937-38

The closer adjustment of world supplies to prospective requirements, which has taken place in the last few years, has resulted from a series of unfavorable crops in important surplus producing countries, largely as a result of drought, rather than from a curtailment of acreage. In Canada, where the effect of the drought has been about as great as in the United States during the 3-year (1933-35) period, average production declined about 35 percent compared with the 5-year (1927-31) period at the same time planted acreage declined only about 1 percent. If production in 1937-38 is again small enough to only about offset the prospective decline in carry-over stocks during the current season, world prices would be expected to remain at high levels. If on the other hand, near average per-acre yields are obtained, production would likely be in excess of the prospective world requirements and result in lower world prices. The present world acreage is so large that over a period of years average acre-yields would again result in large world surpluses.

If weather conditions are more nearly normal in the important wheat exporting countries in 1937-38, the export market is not likely to be dominated by supplies in any one country. This should tend to remove some of the uncertainty that prevailed during the last marketing year when Canada held most of the world's export surplus.

World prices are a factor in determining the level of American prices so that in the long-range outlook, the export market is of concern to all American wheat growers. Increased production of wheat in the Orient and competition from Australia definitely limit the market for American wheat in the Far East. Production of wheat in Europe will probably be maintained near present levels with a tendency for the importing countries to depend upon neighboring sources of supplies insofar as possible. A return to pre-depression exports of wheat (1925-29) from the United States, therefore, appears highly improbable even over a period of some years.



## THE FLAXSEED OUTLOOK FOR 1937

### Summary

Both world demand for flaxseed and world supplies will probably be larger during the marketing of next year's domestic crop than during the current marketing season. World supplies of flaxseed on August 1, 1937 seem likely to be considerably above those available this year, if conditions are more nearly normal than during the last few years, when severe droughts in North America and in Argentina have reduced production far below normal. Domestic building activity and national income are expected to be higher in the fall of 1937 than at present. Some increase in building activity in Great Britain in 1937 is also expected. These factors, together with current moves toward stabilization of currencies and removal of barriers to international trade, would seem to justify the expectation of a somewhat greater world demand for flaxseed in the fall of 1937 than at the present time.

With world supplies of flaxseed August 1 very short principally because of the drought in North America and small stocks in Argentina, and with building activity and most other demand factors well above the levels of a year ago, Minneapolis prices in August and September have ranged from 27 to 40 percent above prices a year earlier. The Argentine crop, which will begin to be harvested in December, is expected to be much larger than last year's short crop. This may become an increasingly important factor affecting domestic prices between now and next July, the end of the marketing season for the domestic 1936 crop. It is also probable that the current upward trend in the demand for flaxseed, as indicated by building activity and certain other demand factors, here and abroad, will continue, and will be a market factor during the same months.

### Larger Supplies Likely in 1937-38

The quantity of flaxseed available for market on August 1, 1936 in the United States, Canada, Argentina, and India was very short compared with a similar figure in 1935, which was about equal to a 5-year average ended August 1932. On the other hand, if later information confirms present prospects, the Argentine crop to be harvested this December and in the early months of 1937 will be much larger than last year's short crop and about equal to average and may be expected to play an increasingly important part during the remainder of the marketing season of the domestic 1936 crop. World supplies of flaxseed during the 1937-38 season seem likely to be somewhat above those of 1936-37 if per-acre yields are more nearly normal than during the last several years, when severe droughts caused extensive abandonment of seeded acreage and reduced outturns in important producing countries.

## Flaxseed supplies in important producing countries, specified periods

| Flaxseed supplies Aug. 1 1/ |                    |          |                |          |            |          |             |           |
|-----------------------------|--------------------|----------|----------------|----------|------------|----------|-------------|-----------|
|                             |                    |          |                |          |            |          |             |           |
| Year                        | United States      | Com-Seed | mer-equivalent | Canada   | Argen-tina | India    | Total       | Year      |
|                             | cial :of linseed:  |          |                |          |            |          |             | harvested |
|                             | supply:oil stocks: |          |                |          |            |          |             | in given  |
|                             |                    |          |                |          |            |          |             | year 2/   |
|                             | 1,000              | 1,000    | 1,000          | 1,000    | 1,000      | 1,000    |             | 1,000     |
|                             | bushels            | bushels  | bushels        | bushels  | bushels    | bushels  |             | bushels   |
| Average:                    |                    |          |                |          |            |          | Av.1928-29: |           |
| 1928-32:                    | 17,896             | 6,600    | 3,816          | 28,167   | 11,455     | 67,934   | to 1932-33: | 71,559    |
| 1933                        | 8,104              | 4,612    | 1,694          | 16,763   | 12,977     | 44,150   | 1933-34     | 62,595    |
| 1934                        | 7,343              | 6,849    | 1,270          | 22,753   | 10,728     | 48,943   | 1934-35     | 79,720    |
| 1935                        | 15,009             | 5,600    | 1,542          | 29,892   | 14,796     | 66,839   | 1935-36     | 56,099    |
| 1936                        | 3/8,536            | 7,572    | 3/1,994        | 3/21,150 | 3/10,424   | 3/49,606 | 1936-37     | 69,500    |

1/ United States July 1 factory, market, and farm stocks plus production less seed requirements plus seed equivalent of June 30 stocks of linseed oil. Canadian total stocks July 31 plus Canadian crop harvested in fall of first year less estimated seed requirements. Argentine stocks January 1, plus crop, less exports January 1 - July 31, less estimated requirements for seed and other domestic use. Indian crop less exports April 1 - July 31. 2/ The Argentine harvest usually begins in December and continues during the first few months of the following year. 3/ Preliminary estimates.

The North American harvest is little more than half that of a year ago and the small harvest is of relatively low quality. The seed has a low oil content and the low iodine number indicates poorer drying quality. The United States 1936 outturn is placed at 6,276,000 bushels, which, together with the July 1 stocks of 3,303,000 bushels, minus estimated seed requirements of 1,043,000 bushels, gives a total domestic commercial supply of 8,536,000 bushels or about 20,000,000 bushels less than prospective domestic requirements.

The acreage of flax seeded in 1936 was slightly in excess of the seeded acreage in 1935. Drought caused a total failure of flax in large areas of North Dakota, South Dakota, and Montana. Following a year of low yields and heavy abandonment for both flax and spring wheat, plantings of flax in 1937 will probably depend more on the spring moisture conditions and on the available seed supply than on relative returns of last year or on prospective returns in 1937. Much of the flaxseed crop in the northern States is of poor quality and low germination, and the supply of seed suitable for sowing is short. Even if normal conditions for seeding wheat and flax prevail, and no marked change in the price of flax relative to wheat occurs between now and planting time, the acreage planted in the northern flaxseed-producing States will probably be somewhat less than the acreage seeded in 1935. Production in California has increased steadily in recent years and in other States the acreage of flax may be maintained, yet there is little likelihood that the flax acreage in the United States in 1937 will equal the acreage seeded in 1935.

Flaxseed - 3.

Canada has harvested a crop of 1,855,000 bushels, which, together with a carry-over of 269,000 bushels and allowing 130,000 bushels for seed, gives a total commercial supply of 1,994,000 bushels. Domestic disappearance usually does not fall below 2,600,000 bushels, which suggests that Canada will continue to import flaxseed during the current marketing season.

The 1935-36 Argentine crop totaled 56,099,000 bushels, which, with the carry-over of 4,865,000 bushels, gave a total supply of 60,964,000 bushels. Deducting exports from January 1 to July 31, 1936, or 31,940,000 bushels, and requirements for seed and other domestic use leaves the unusually small figure of 21,150,000 bushels available for export August 1, 1936. Active demand and relatively high prevailing prices together with limited supplies in other exporting areas suggest a continued steady absorption of Argentine flaxseed and a relatively small carry-over into 1937. The Argentine crop which will begin to be harvested in December of this year seems likely to show a marked increase over the unusually short crop of a year ago and will probably be somewhat below the average of the five crops ended with that of 1932-33. The seeded acreage is placed at 7,425,000 acres and, allowing for average abandonment and average per-acre yields, an outturn of some 69,500,000 bushels is in prospect. Russia ranks next to the Argentine as a producer of flaxseed but usually the crop is used at home and has little influence on the world market situation.

The 1936 Indian outturn is placed at 15,360,000 bushels as against 16,800,000 bushels a year earlier, with the quality of the crop generally good. Exports from April 1 to July 31 totaled 4,936,000 bushels, leaving 10,424,000 bushels available for export or domestic use on August 1, which is lower than any comparable figure back to 1930. The weather is reported to be favorable for planting, and higher prices now ruling may constitute a factor in favor of an increase in acreage. In the past, however, factors indicating prospective changes in acreage have not been reliable, since not much change in acreage has taken place.

#### World Demand Increases

Present and prospective levels of building activity, industrial production, and other factors bearing upon the demand for flaxseed here and abroad indicate that demand in <sup>the</sup> four principal linseed oil consuming countries is now well above the level maintained during the marketing of the 1935 domestic flaxseed crop. A further increase in demand is expected to occur during the remainder of the marketing season for the 1936 crop, with a less marked upward trend continued through the fall months of 1937.

The volume of building activity in the United States in the 8 months January-August 1936 was 80 percent greater than in the same months of 1935, and an upward trend is expected to continue into the fall of 1937. Industrial production and national income are expected to be about 10 percent higher in 1937 than in 1936.



# Flaxseed - 4.

Building activity in principal European flaxseed importing countries in 1937 may be somewhat greater than in 1936. In the United Kingdom, in the 7 months January-July 1936, approved building plans totaled 14 percent above the same months of 1935. This increase is about the same as the increase of 1935 over 1934, but both are much smaller than several previous increases. It seems probable that an increase may be expected in 1937, though perhaps not as large a percentage increase as in 1936. Though building activity in Germany is showing greater current increases than in Great Britain, governmental limitation of the amount of foreign exchange made available to importers and compulsory use of linseed oil substitutes on interior surfaces lead to the expectation of only a slight increase in demand for flaxseed in Germany in 1937. Building activity in France is currently somewhat lower than a year ago. The devaluation of the franc may tend to increase building and industrial activity, but the effect of this on the demand for flaxseed may be partly offset by the increase in the franc price of flaxseed resulting from the devaluation. In the Netherlands no changes are contemplated in existing import restrictions on flaxseed and oilcake and, though the currency has been devalued, the Netherlands may be expected to absorb at least as much flaxseed as last year.

An unusually large proportion of last year's exceptionally large domestic crop of soybeans of 39,637,000 bushels was crushed. On the basis of crushings for the first three-quarters of the year, beginning October 1, it is probable that about two-thirds of the crop was crushed. The large supply of domestic soybean oil did not, however, appreciably affect the drying-oil situation, because practically all of the increased supply went into edible products rather than into drying-oil products largely as a result of the unusually high price of cottonseed oil. The 1936 production of soybeans in six commercial States is now estimated at 25,746,000 bushels compared with 37,691,000 bushels last year.

## Soybeans: Production and quantity crushed, specified periods

| Year           | :                    | : | :                    | : Beans crushed as a per |
|----------------|----------------------|---|----------------------|--------------------------|
| beginning Oct: | Production           | : | Beans crushed        | : centage of production  |
| :              | <u>1,000 bushels</u> | : | <u>1,000 bushels</u> | <u>Per cent</u>          |
| Av. 1928-29    | :                    | : | :                    | :                        |
| to 1932-33     | :                    | : | :                    | :                        |
| 1933-34        | :                    | : | :                    | :                        |
| 1934-35        | :                    | : | :                    | :                        |
| 1935-36        | :                    | : | :                    | :                        |

There has been a marked increase in consumption of perilla oil and hempseed oil in the past year. As indicated by the accompanying table, the consumption of these two oils constituted from 5 to 6 percent of domestic consumption of the four principal drying oils in the years beginning July 1, 1933 and 1934, but in 1935-36 the consumption of these two oils constituted about 17 percent.

Flaxseed - 5.

Consumption 1/ of important drying oils, 1933-34 to 1935-36

| Year begin-<br>ning July 1: | Linseed:<br>oil  | Tung oil        | Perilla:<br>oil | Hempseed:<br>oil | Total,<br>4 oils | Perilla and hempseed<br>percentage of total |
|-----------------------------|------------------|-----------------|-----------------|------------------|------------------|---|
|                             | <u>:1,000 lb</u> | <u>1,000 lb</u> | <u>1,000 lb</u> | <u>1,000 lb</u>  | <u>1,000 lb</u>  | <u>Percent</u>                              |
| 1933-34 ..                  | : 412,733        | 122,099         | 28,186          |                  | 563,018          | 5.0   |
| 1934-35 ..                  | : 429,747        | 127,227         | 35,737          | <u>2/2,180</u>   | 594,891          | 6.4   |
| 1935-36 ..                  | : 469,962        | 134,258         | 99,272          | <u>2/21,451</u>  | 714,943          | 16.9  |

1/ Estimated total disappearance for all uses. 2/ Estimated factory production.

Effective August 21, 1936, Section 701 of the Revenue Act of 1936 placed a tax of 4 1/2 cents per pound on imports of perilla oil and of hempseed oil. Since the New York price per pound of perilla oil in the 7 months ended July 1936 averaged 7.8 cents per pound and in the same months the New York price of crude hempseed oil averaged 8.4 cents per pound, it is clear that the tax of 4 1/2 cents per pound on imports may be expected to exert an important influence tending to decrease imports and raise the domestic prices of these oils in 1937.



## THE COTTON OUTLOOK FOR 1937

Press and Radio Release

Date - Nov. 8 - a.m.

### Summary

The world supply of all cotton for the 1936-37 season is now (late October) expected to be considerably larger than in either of the 2 previous seasons and 15 percent above the average for the 10 years 1923-24 to 1932-33. The total world carry-over at the beginning of the current season was 1,600,000 bales less than a year earlier but this decline is expected to be more than offset by an increase in world production. The world supply of American cotton in 1936-37, however, is expected to be about 1,000,000 bales less than in the previous season, the lowest in 12 years and 9 percent less than the 10-year average. The world carry-over of American at the beginning of the season was approximately 2,000,000 bales less than a year earlier and the smallest in 6 years but was 17 percent larger than the 10-year average. The production of American cotton for the 1936-37 season, while 3 percent larger than last season, is one-fifth less than the 10-year average and the smallest with two exceptions in 13 years.

With the carry-over of foreign cotton materially above the average for the 10 years ended 1932-33 and the prospective production the largest in history, the supply of foreign cotton in 1936-37 is expected to reach a new peak and exceed the average by 47 percent. The increase in the supply of foreign cotton in comparison with the average is largely the result of the market increase in Russian, Brazilian, and Chinese growths. The increase over 1935-36 is largely due to an increase in Chinese, Russian and Indian. Total foreign production this season is expected to reach 17,500,000 bales, an increase of 1,600,000 bales over the record crop of the previous season and 56 percent above the 10-year average. Such a crop would exceed the 1936-37 United States production by 5,900,000 bales or 51 percent, whereas in the 10 years ended 1932-33 the domestic crop exceeded that of foreign countries by 3,200,000 bales.

With a prospect of some increase in world carry-over of foreign cottons in 1937, the supply of such cotton for the season 1937-38 will probably be somewhat larger than the unusually large supply of the current season, unless the foreign crop in 1937-38 is substantially smaller than in the present season. With a further reduction in world carry-over of American cotton in 1937 as now appears probable, the 1937 United States crop could be increased somewhat without giving a world supply of American cotton for the season 1937-38 larger than the comparatively small supply of this cotton for the present season.

Increased prices, available land, abundant labor supply, and ample credit are conducive to a substantial increase in acreage to be planted to cotton in the United States in 1937. To what extent provisions of the 1937 Agricultural Conservation Program may influence acreage is not known, since this program has not yet (late October) been announced.

An increase in the 1937 crop by a quantity substantially greater than the reduction in the carry-over from August 1, 1936 to August 1, 1937 would tend to reduce prices, unless offset by an increase in demand for American cotton or

by a rise in the general price level. The effect which such a reduction in cotton prices would have on the income to producers would tend to be offset by the increased volume of American cotton. Although an increase in the supply of American cotton for export would tend to strengthen the competitive position of American cotton in world markets, the advisability of increased production depends upon its effect on the income of producers not only in the next year or two but over a period of years.

Changes in supplies of foreign cotton affect materially the prices of American cotton. If the supply of foreign cotton should continue to increase, relative to American cotton, it would become increasingly influential in determining the world price of all cottons. Moreover, the increasing adaptability of manufacturing processes to a wider range of staple lengths and the increasing proportion of foreign cotton which is similar in quality to American are tending to increase the direct competition of foreign cotton with American in world markets. An improvement in the quality of cotton produced in many localities in the United States would tend to strengthen the competitive position of American cotton in world markets.

In addition to the direct effect of price and quality, other factors also influence the competitive position of American cotton in world markets. As noted in the report on foreign demand, recent developments in the international field suggest the possibility of some relaxation of exchange restrictions, tariffs, and other impediments to international trade. Further general economic recovery in foreign cotton producing countries may indirectly strengthen the position of American cotton. Improvement in prices, especially of agricultural products that compete with cotton for land and other resources in the agriculture of those countries would tend to reduce encouragement by foreign governments for expansion of cotton production and to diminish the direct price stimulus for shifts to cotton from competitive products.

World mill consumption of all cotton, as estimated from reports of the International Federation, reached a new high level of 26,800,000 bales last season. This represented an increase of 6 percent over the previous season and was 14 percent above the 10-year average. Of the 1,600,000-bale increase last season in total consumption, 1,340,000 bales occurred in American cotton, all but 360,000 bales of which was accounted for by the increase in the United States. World consumption of American cotton in 1935-36 was still 800,000 bales less than the 10-year average. World consumption of foreign cotton on the other hand was 4,100,000 bales, or 40 percent above the 10-year average, and was the largest in history.

The increase in last season's consumption of American cotton outside the United States was largely accounted for by increases in Great Britain, France, and several of the smaller consuming countries. These increases were partly offset by the decrease in China, Germany, Italy, and Spain.

Should general world business conditions continue to improve, world consumption in the 1936-37 season may again increase. It is probable, however, that any significant increase in the total would result from increased consumption of foreign, although the consumption of American cotton is expected to exceed production.



Cotton prices (Middling 7/8 inch in the 10 designated markets) in 1935-36 averaged about 7 percent lower than in the previous season, and nearly one-third lower than the 10-year average, but they averaged higher than in any season since 1929-30 with but one exception. With the prospective supply of American cotton materially smaller for the present season than a year earlier and with general demand conditions more favorable, domestic prices during the first 2 months of the season averaged about 1 cent above the corresponding period a year earlier and about one-half cent above the 1935-36 average.

The advance in the level of cotton prices and an estimated 1936 crop 1,000,000 bales larger than last year indicate that the gross income from the sale of the domestic crop of 1936 probably will be the largest in 7 years. It will probably materially exceed that of 1935-36 which was 50 percent above the gross income from the 1932 crop, but was 44 percent below the average for the 10 years ended 1932-33. Including Government payments, gross farm income from last year's cotton crop was 86 percent above 1932 but was 30 percent below the average. But when adjusted for changes in prices of things farmers buy, the gross income was 57 percent above 1932 and 18 percent below the 10-year average.

During the first 2 months of the 1936-37 season, as well as in the latter part of the previous season, the Liverpool price of American cotton increased relative to some of the important foreign growths, particularly Indian and Egyptian. With the supply of American cotton considerably smaller than in the previous season and the supply of Indian and Egyptian larger, it is reasonable to expect that the price ratio of these foreign growths to American will continue lower than last season for a substantial part of the current marketing year.

#### World Consumption Highest on Record

Total world mill consumption of all cotton for 1935-36 substantially exceeded that for any other year on record. World consumption of American cotton amounting to 47 percent of the total, was about 12 percent more than for a year earlier but 6 percent smaller than the average for the 10-year period 1923-24 to 1932-33. Approximately three-fourths of last season's increase in world consumption of American cotton occurred in the United States, where 98 percent of the cotton consumed was American. World consumption of foreign cotton amounting to 53 percent of the total in 1935-36 was 2 percent more than in the previous year and 40 percent more than the 10-year average. The sharp increase in the consumption of foreign cottons in the last few years, over the 10-year average, was largely accounted for by the increased consumption of sundries, particularly Brazilian, Russian, and Chinese although increases also occurred in Indian and Egyptian.

The continued increase in world cotton consumption from the low point in 1930-31 resulted largely from the growth of population and from the improvement in general economic conditions in most countries. It occurred despite increased competition from other textile fibers, particularly synthetic materials. If world business conditions continue to improve, total consumption of cotton may again increase in 1936-37, but the outlook for world consumption now seems less favorable for American cotton than for foreign growths, owing mainly to the increased supplies of foreign and decreased supplies of American cotton. Early-season conditions indicate that the 1936-37 consumption of American cotton in the United States will probably equal or exceed that for 1935-36 but that the foreign consumption of American cotton may not equal that for the previous year. It is expected, however, that the world consumption of American cotton will exceed the 1936-37 production.

## Cotton: Mill Consumption in the world

| Season :                   | ::        |          |         | ::                |          |          | ::        |          |          |
|----------------------------|-----------|----------|---------|-------------------|----------|----------|-----------|----------|----------|
| begin- :     United States | ::        |          |         | Foreign countries |          |          | ::        |          |          |
| ning :     World           | ::        |          |         | ::                |          |          | ::        |          |          |
| Aug. 1 :                   | American: | Foreign: | Total : | American:         | Foreign: | Total :  | American: | Foreign: | Total    |
|                            | : 1,000   | : 1,000  | : 1,000 | : 1,000           | : 1,000  | : 1,000  | : 1,000   | : 1,000  | : 1,000  |
| Average:                   | bales     | : bales  | : bales | : bales           | : bales  | : bales  | : bales   | : bales  | : bales  |
| 1923-24:                   | 1/        | : 1/     | : 1/    | : 1/              | : 1/     | : 1/     | : 1/      | : 1/     | : 1/     |
| to :                       | :         | :        | :       | :                 | :        | :        | :         | :        | :        |
| 1932-33:                   | 5,927     | : 255    | : 6,182 | : 7,549           | : 9,802  | : 17,351 | : 13,476  | : 10,057 | : 23,533 |
| :                          | :         | :        | :       | :                 | :        | :        | :         | :        | :        |
| 1932-33:                   | 6,004     | : 133    | : 6,137 | : 8,167           | : 9,679  | : 17,846 | : 14,171  | : 9,812  | : 23,983 |
| 1933-34:                   | 5,553     | : 147    | : 5,700 | : 7,981           | : 11,068 | : 19,049 | : 13,534  | : 11,215 | : 24,749 |
| 1934-35:                   | 5,241     | : 120    | : 5,361 | : 6,098           | : 13,774 | : 19,872 | : 11,539  | : 13,894 | : 25,233 |
| 1935-36:                   | 6,221     | : 130    | : 6,351 | : 6,455           | : 13,993 | : 20,448 | : 12,676  | : 14,123 | : 26,799 |

Based on reports of the International Federation except for the United States which are from Bureau of the Census reports.

1/ American and sundries in running bales and Indian and Egyptian converted to bales of approximately 500 pounds.

United States Consumption Larger than Average

Cotton consumption in the United States increased in 1935-36 and was slightly above the 10-year average. This increase was largely the result of a marked improvement in business conditions and an increase in consumer incomes. The indications are that the distribution of cotton fabrics to ultimate consumers continued at a comparatively high rate during the 1935-36 season and the first quarter of 1936-37. Sales of unfinished cotton cloth by domestic mills have apparently exceeded the sharp increase in mill output and at the beginning of the 1936-37 season mill stocks of cloth were apparently smaller and unfilled orders larger than at the beginning of either of the two preceding seasons. Mill activity for the first 3 months of the current season was well above that for this period in the previous year. Conditions in late October were, on the whole, apparently favorable to the maintenance of a rate of mill consumption above that for a year earlier.

Foreign Countries Increased Total Consumption

Total mill consumption of all cotton in foreign countries increased in 1935-36 and was considerably larger than the average for the 10 years ended 1932-33. Consumption of American cotton outside the United States last season was 6 percent larger than in the previous year, but about 15 percent smaller than the 10-year average. Total consumption of foreign cotton in these countries was a little larger than in the previous season and 45 percent more than average. Of the net gain in the consumption of foreign cotton relative to American in 1935-36, as compared with the 10-year average, more than half was in non-cotton-producing countries and somewhat less than half in cotton-producing countries, notably Russia, India, China, and Brazil.

## Cotton:--Mill consumption in principal foreign regions

| Season :         | Europe       |              |              | Orient       |              |              | Elsewhere    |              |              |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| begin-<br>ning : |              |              |              |              |              |              |              |              |              |
| Aug. 1 :         | American:    | Foreign:     | Total :      | American:    | Foreign:     | Total :      | American:    | Foreign:     | Total        |
|                  | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> | <u>1,000</u> |
| Average:         | <u>bales</u> | <u>bales</u> | <u>bales</u> | <u>bales</u> | <u>bales</u> | <u>bales</u> | <u>bales</u> | <u>bales</u> | <u>bales</u> |
| 1923-24:         | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    | <u>1/</u>    |
| to :             |              |              |              |              |              |              |              |              |              |
| 1932-33:         | 5,773        | 4,070        | 9,843        | 1,521        | 4,870        | 6,391        | 255          | 862          | 1,117        |
|                  |              |              |              |              |              |              |              |              |              |
| 1932-33:         | 5,236        | 3,907        | 9,143        | 2,655        | 4,855        | 7,510        | 276          | 917          | 1,193        |
| 1933-34:         | 5,437        | 4,740        | 10,177       | 2,238        | 5,269        | 7,507        | 306          | 1,059        | 1,365        |
| 1934-35:         | 3,816        | 6,190        | 10,006       | 1,997        | 6,354        | 8,351        | 285          | 1,230        | 1,515        |
| 1935-36:         | 4,351        | 6,197        | 10,548       | 1,793        | 6,423        | 8,216        | 311          | 1,374        | 1,685        |

Based on reports of the International Federation except for Germany and Italy, which were obtained from trade sources.

1/ American and sundries in running bales and Indian and Egyptian converted to bales of approximately 500 pounds.

Europe.-- Although consumption of American cotton in Europe is estimated to have increased last season, it was still below the 10-year average. Consumption of foreign cotton increased slightly last season and was well above the average. Most of the increase over the 10-year average in European consumption of cotton other than American was in sundry growths. Consumption of sundries in the 1935-36 season was almost twice as large as the average for the 10-year period. Increased supplies of sundry growths such as Brazilian, along with price relationships favorable to the consumption of these growths and special trade arrangements, account for most of the increase in the European consumption of sundries. An increase in the total consumption of cotton in France, Russia and the smaller cotton-consuming countries on the Continent for 1935-36 was more than offset by decreases in Italy, Spain, and a few other countries. In the United Kingdom, where a large part of the increase in the European consumption of American cotton occurred, the substantial gain in total consumption was due mainly to increased sales of cotton goods to domestic consumers, although exports of cotton goods increased slightly.

The increase in the total consumption of all growths in Europe in 1935-36 over that in the preceding season accompanied an increase in industrial activity. It took place in spite of continued exchange difficulties, the forced substitution of increased quantities of synthetic fibers for cotton in certain countries, and general unsettled economic and political conditions. Present indications are that, in the absence of substantial changes in existing political and economic conditions total European consumption in 1936-37 will be about equal to that for the previous season but that American cotton will encounter increased competition from other growths.



Cotton: Mill consumption in Europe

| Season :         | United Kingdom : |           |         | Continent : |           |         | Continent excluding Russia : |           |         |
|------------------|------------------|-----------|---------|-------------|-----------|---------|------------------------------|-----------|---------|
| begin-<br>ning : | United Kingdom : |           |         | Continent : |           |         | Continent excluding Russia : |           |         |
| Aug. 1 :         | American :       | Foreign : | Total : | American :  | Foreign : | Total : | American :                   | Foreign : | Total : |
| 1923-24 :        | 1,000            | 1,000     | 1,000   | 1,000       | 1,000     | 1,000   | 1,000                        | 1,000     | 1,000   |
| Average :        | bales            | bales     | bales   | bales       | bales     | bales   | bales                        | bales     | bales   |
| 1923-24 :        | 1/               | 1/        | 1/      | 1/          | 1/        | 1/      | 1/                           | 1/        | 1/      |
| to :             | :                | :         | :       | :           | :         | :       | :                            | :         | :       |
| 1932-33 :        | 1,728            | 1,091     | 2,819   | 4,045       | 2,979     | 7,024   | 3,802                        | 1,582     | 5,384   |
| 1932-33 :        | 1,400            | 973       | 2,373   | 3,856       | 2,933     | 6,769   | 3,806                        | 1,350     | 5,156   |
| 1933-34 :        | 1,461            | 1,126     | 2,607   | 3,376       | 3,594     | 7,570   | 3,916                        | 1,769     | 5,685   |
| 1934-35 :        | 1,049            | 1,572     | 2,621   | 2,767       | 4,618     | 7,385   | 2,721                        | 2,678     | 5,399   |
| 1935-36 :        | 1,578            | 1,456     | 2,834   | 2,375       | 4,740     | 7,713   | 2,862                        | 2,788     | 5,650   |

Based on reports of the International Federation except for Germany and Italy, which were obtained from trade sources.

1/ American and sundries in running bales and Indian and Egyptian converted to bales of approximately 500 pounds.

Orient.— The small decrease in the consumption of American cotton in the Orient (Japan, China, and India) during 1935-36 was partly offset by the increase in the consumption of other cotton, principally Chinese. Although somewhat below that for 1934-35, mill consumption of all kinds of cotton in the Orient last season was 29 percent above the 10-year average. About 15 percent of the total increase was accounted for by consumption of American cotton.

In Japan, where the bulk of the Oriental consumption of American cotton occurred, the consumption of both American and other cotton, mostly Indian, was about the same in 1935-36 as the previous season, with other cotton slightly exceeding American. The increase in the Japanese consumption of American cotton in 1935-36 over the 10-year average, exceeded that for foreign cotton and this increase offsets to some extent the decline in the consumption of American cotton in Europe. It resulted largely from the displacement of European cotton textiles by Japanese products in export markets. In recent months trade barriers in some countries have been increased, affecting the importation of Japanese cotton goods. This may tend to discourage further expansion in exports of cotton goods from that country. Hence, total consumption of cotton in Japan in 1936-37 is not expected to be greatly different from that in the previous season. The consumption of American may be somewhat smaller, because of displacement by other growths.

Mill consumption of American cotton in China has declined sharply during recent years, principally because of the increasing production and consumption of Chinese cotton. Since the Chinese crop is expected to be substantially larger for 1936-37 than for the previous year, the consumption of American cotton in that country will probably again decline this season.

Indications are that the total mill consumption of cotton in India, most of which is produced within the country, will continue to increase during 1936-37, and increase further the displacement of imported textiles, chiefly from the United Kingdom and Japan.



## Cotton: Mill consumption in the Orient

| Season         | Japan    |         |       | China    |         |       | India    |         |       |
|----------------|----------|---------|-------|----------|---------|-------|----------|---------|-------|
| begin-<br>ning |          |         |       |          |         |       |          |         |       |
| Aug. 1         | American | Foreign | Total | American | Foreign | Total | American | Foreign | Total |
|                | 1,000    | 1,000   | 1,000 | 1,000    | 1,000   | 1,000 | 1,000    | 1,000   | 1,000 |
| Average        | bales    | bales   | bales | bales    | bales   | bales | bales    | bales   | bales |
| 1923-24        | 1/       | 1/      | 1/    | 1/       | 1/      | 1/    | 1/       | 1/      | 1/    |
| to             |          |         |       |          |         |       |          |         |       |
| 1932-33        | 1,032    | 1,351   | 2,433 | 340      | 1,689   | 2,029 | 99       | 1,830   | 1,929 |
| 1932-33        | 1,772    | 955     | 2,727 | 748      | 1,836   | 2,584 | 135      | 2,064   | 2,199 |
| 1933-34        | 1,781    | 1,255   | 3,036 | 417      | 1,966   | 2,383 | 40       | 2,048   | 2,088 |
| 1934-35        | 1,674    | 1,748   | 3,422 | 256      | 2,223   | 2,479 | 67       | 2,383   | 2,450 |
| 1935-36        | 1,614    | 1,745   | 3,360 | 109      | 2,231   | 2,340 | 70       | 2,446   | 2,516 |

Based on reports of the International Federation.

1/ American and sundries in running bales and Indian and Egyptian converted to bales of approximately 500 pounds.

Other countries.— Total mill consumption of cotton in foreign countries outside Europe and the Orient was larger during 1935-36 than in the previous season and substantially larger than the 10-year average. The consumption of American cotton in these countries during 1935-36, most of which was in Canada, was slightly larger than in the previous season and somewhat larger than the average, whereas, that of foreign cotton was increased substantially over the previous year and was nearly 60 percent above the average. Increases in the consumption of native cotton in Brazil, Mexico, and the less important cotton-producing countries in North and South America, account for a considerable part of the increase in consumption of cotton other than American in these countries during recent years.

Supply - Foreign and DomesticCarry-over smaller

The world carry-over of all cotton at the beginning of the 1936-37 season was substantially smaller than a year earlier, the smallest in 6 years, and 4,800,000 bales less than the peak of 1932, but was materially larger than the average for the 10 years ended 1932-33. The net decline in the world carry-over of all cotton last season resulted from a decline of 2,000,000 bales in American cotton, which more than offset an increase of 400,000 bales in foreign cotton. The world carry-over of American cotton at the beginning of the current season was about 6,000,000 bales less than the peak of 1932, but considerably larger than the 10-year average. The world carry-over of foreign cotton on August 1, 1936 was somewhat smaller than the peak of 1934 but substantially above the average for the 10-year period.

## Cotton: World carry-over by growths, specified periods

| Season beginning Aug. 1           | American         |                      |               | Foreign       |               |               |               | All growths   |
|-----------------------------------|------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                   | In United States | In foreign countries | Total         | Indian        | Egyptian      | Sundries      | Total         |               |
| Average                           | Million bales    | Million bales        | Million bales | Million bales | Million bales | Million bales | Million bales | Million bales |
| 1923-24 to 1932-33 ..             | 3.7              | 2.3                  | 6.0           | 2.4           | .9            | .9            | 4.2           | 10.2          |
| 1932-33 ..                        | 9.6              | 3.4                  | 13.0          | 1.8           | 1.4           | .9            | 4.1           | 17.0          |
| 1933-34 ..                        | 8.1              | 3.5                  | 11.6          | 2.5           | 1.0           | 1.0           | 4.5           | 16.2          |
| 1934-35 ..                        | 7.6              | 3.0                  | 10.6          | 3.0           | 1.0           | 1.6           | 5.6           | 16.2          |
| 1935-36 ..                        | 7.1              | 1.9                  | 9.0           | 2.3           | .8            | 1.7           | 4.8           | 13.8          |
| 1936-37 1/                        | 5.3              | 1.7                  | 7.0           | 2.6           | .7            | 1.9           | 5.2           | 12.2          |
| 1936-37 as percentage of average: | 143.2            | 73.9                 | 116.7         | 108.3         | 77.8          | 211.1         | 123.8         | 119.6         |
| 1/ Preliminary.                   |                  |                      |               |               |               |               |               |               |

Present prospects for consumption and production indicate that the carry-over of American cotton on August 1, 1937 will be further reduced but that the carry-over of foreign cotton is likely to increase.

Production increased

Both domestic and foreign production of cotton in the current season are expected, in late October, to be larger than last season. The United States crop is expected to be 1,000,000 bales larger than in 1935-36 and the foreign crop 1,600,000 bales larger than last season. Such increases would give a total world crop materially larger than for any of the four previous seasons and larger than any other year in history.

The increase in the world production in recent years is accounted for largely by the marked increase in foreign cotton. While the United States crop is expected to be 9 percent larger than last season, it is now estimated to be approximately one-fifth less than the 10-year average ended 1932-33, and the smallest with two exceptions in the last 13 years. Total production in foreign countries in 1936-37, on the other hand, as estimated in late October is 10 percent larger than the record crop of the previous season and 56 percent above the 10-year average. It is 5,900,000 bales larger than the prospective United States crop, whereas in the 10 years ended 1932-33 the United States crop exceeded that of foreign countries by 3,200,000 bales.

The comparatively small domestic crop of 1936 was due largely to the small acreage (the smallest with two exceptions since 1905) for average yield per acre for the United States were estimated in October at 17 pounds above the 10-year average. However, except for unfavorable weather which tended to restrict the planting of cotton in the southeastern States and greatly reduced yields in Oklahoma and Texas, both acreage and production might have been larger, although

very favorable growing conditions in the central and eastern part of the Belt resulted in above average yields for the Belt as a whole. The larger foreign production of 1936-37 is mainly the result of increased acreage throughout most of the foreign producing countries, although in China where the current crop is unusually large, weather conditions are said to have been especially favorable.

In comparison with the 10-year average, production in most foreign countries in 1936-37 shows a substantial increase. The most marked increase in the larger countries occurred in Brazil where the crop in the current season is expected to be about 1,800,000 bales. This is more than three and one-half times as large as the 10-year average. Russia has also shown a marked increase, the current crop being estimated at more than twice the 10-year average and about 70 percent more than the pre-war peak. The Russian crop is equal to more than one-fifth of the current United States crop. In China, the 1936-37 crop is about 70 percent larger than the 10-year average, and is expected to be nearly one-third as large as the current crop of the United States. Most of the minor producing countries have also shown substantial increases in the last few years. The combined production of all foreign countries, other than the five largest producing countries, this season is expected to be about 80 percent larger than the average for the 1923-24 to 1932-33 period.

Cotton: Production in principal producing countries, specified periods

| Country or region   | 10-year: | :        | :        | :        | :        | :        | 1936-37   |
|---------------------|----------|----------|----------|----------|----------|----------|-----------|
|                     | average: | :        | :        | :        | :        | :        | as a per- |
|                     | 1923-24: | 1932-33: | 1933-34: | 1934-35: | 1935-36: | 1936-37: | centage   |
|                     | to       | :        | :        | :        | :        | 1/       | of        |
|                     | 1932-33: | :        | :        | :        | :        | :        | average   |
|                     | Million: | Million: | Million: | Million: | Million: | Million: |           |
|                     | bales    | bales    | bales    | bales    | bales    | bales    | Percent   |
| United States ....  | 14.4     | 13.0     | 13.0     | 9.6      | 10.6     | 11.6     | 80.6      |
| Foreign countries : | 11.2     | 10.9     | 13.7     | 14.2     | 15.9     | 17.5     | 156.3     |
| India .....         | 4.5      | 3.9      | 4.3      | 4.1      | 4.8      | 5.0      | 111.1     |
| Egypt .....         | 1.5      | 1.0      | 1.8      | 1.6      | 1.8      | 1.9      | 126.7     |
| Sundries .....      | 5.2      | 6.0      | 7.6      | 8.5      | 9.3      | 10.6     | 203.8     |
| China .....         | 2.1      | 2.3      | 2.7      | 3.1      | 2.6      | 3.6      | 171.4     |
| Russia .....        | 1.1      | 1.8      | 1.9      | 1.7      | 2.2      | 2.5      | 227.3     |
| Brazil .....        | .5       | .4       | 1.0      | 1.4      | 1.7      | 1.8      | 360.0     |
| Other countries :   | 1.5      | 1.5      | 2.0      | 2.3      | 2.7      | 2.7      | 180.0     |
| World total .....   | 25.6     | 23.9     | 26.7     | 23.8     | 26.5     | 29.1     | 113.7     |

1/ Very tentative estimates, particularly in the case of India, Brazil, Russia and a number of the smaller producing countries where in a number of cases much of the crop is not ready for market until the first or second quarter of 1937.

Increased prices, available land, abundant labor supply, and ample credit are conducive to a substantial increase in acreage to be planted to cotton in the United States in 1937. To what extent provisions of the 1937 Agricultural Conservation Program may influence acreage is not known, since this program has not yet (late October) been announced. A prospective decrease in the carry-over of American cotton in 1937 compared with that in 1936 indicates that the United States cotton crop in 1937 could be increased somewhat without giving a world supply of American cotton for the 1937-38 season larger than the comparatively small supply of the present season.



An increase in the 1937 crop by a quantity substantially greater than the reduction in the carry-over from August 1, 1936 to August 1, 1937 would tend to reduce prices, unless offset by an increase in demand for American cotton or by a rise in the general price level. The effect which such a reduction in cotton prices would have on the income to producers would tend to be offset by the increased volume of American cotton. Although an increase in the supply of American cotton for export would tend to strengthen the competitive position of American cotton in world markets, the advisability of increased production depends upon its effect on the income of producers not only in the next year or two but over a period of years.

Changes in supplies of foreign cotton affect materially the prices of American cotton. If the supply of foreign cotton should continue to increase, relative to American cotton, it would become increasingly influential in determining the world price of all cottons. Moreover, the increasing adaptability of manufacturing processes to a wider range of staple lengths, and the increasing proportion of foreign cotton which is similar in quality to American are tending to increase the direct competition of foreign cotton with American in world markets.

In addition to the direct effect of price and quality, other factors also influence the competitive position of American cotton in world markets. As noted in the report on foreign demand, recent developments in the international field suggest the possibility of some relaxation of exchange restrictions, tariffs, and other impediments to international trade. Further general economic recovery in foreign cotton-producing countries may indirectly strengthen the position of American cotton. Improvement in prices, especially of agricultural products that compete with cotton for land and other resources in the agriculture of those countries, would tend to reduce encouragement by foreign governments for expansion of cotton production and to diminish the direct price stimulus for shifts to cotton from competitive products.

There has been a rather marked increase in cotton acreage and production in foreign countries in the last few years. Weather conditions in several foreign countries this season, particularly in China, have been unusually favorable. Prices received in many of these countries have not increased in the last 2 years. These facts make it unlikely that foreign production in 1937-38 will show any material increase over the record crop of the current season. It may even decline.

#### Supply larger

The reduction in the total world carry-over at the beginning of the current season was not enough to offset the prospective increase in production, consequently the total world supply of all cotton for the 1936-37 season is now (late October) expected to be slightly larger than in the previous season. This prospective supply is 15 percent larger than the average for the 10 years ended 1932-33, but 4 percent less than the record supply of 1933-34. The supply of American cotton is now expected to be 1,000,000 bales less than in the previous season, 9 percent less than the 10-year average, and the smallest in 12 years. The supply of foreign cotton, on the other hand, is expected to be about 2,000,000 bales above the large supply of last season, 47 percent above the 10-year average and the largest of record.



The increase in the supply of foreign cotton during the last few years is accounted for primarily by the increase in sundry growths (all growths other than American, Indian, and Egyptian), which for the 1936-37 season is now expected to be 14 percent above the supply for the previous season and more than twice as large as the 10-year average. The increase in these growths in recent years is in turn accounted for primarily by increases in Chinese, Russian, and Brazilian, although large percentage increases in cotton production have also occurred in many of the smaller countries.

On the basis of October estimates, the world supply of Indian this season will be slightly larger than the supply of either of the two previous seasons and about 12 percent above average for the 10 years ended 1932-33. The 1936-37 supply of Egyptian cotton will probably be about the same as in each of the two previous seasons, but slightly larger than average.

Cotton: World supply by growths, specified periods

| Season      | Foreign cotton                                       |         |          |          |         |             |
|-------------|--|---------|----------|----------|---------|-------------|
| beginning   | American   | Indian  | Egyptian | Sundries | Total   | All growths |
| Aug. 1      |  |         |          | 1/       |         |             |
|             | Million  | Million | Million  | Million  | Million | Million     |
| Average     | bales  | bales   | bales    | bales    | bales   | bales       |
| 1923-24 to: |  |         |          |          |         |             |
| 1932-33     | 20.4   | 6.8     | 2.5      | 6.1      | 15.4    | 35.8        |
| 1932-33     | 26.0   | 5.7     | 2.4      | 6.9      | 15.0    | 41.0        |
| 1933-34     | 24.6   | 6.8     | 2.8      | 8.6      | 18.2    | 42.8        |
| 1934-35     | 20.3   | 7.0     | 2.6      | 10.1     | 19.7    | 40.0        |
| 1935-36     | 19.6   | 7.1     | 2.6      | 11.0     | 20.7    | 40.3        |
| 1936-37 2/  | 18.6   | 7.6     | 2.6      | 12.5     | 22.7    | 41.3        |
|             | Percent  | Percent | Percent  | Percent  | Percent | Percent     |
| 1936-37 as: |  |         |          |          |         |             |
| a percent-  |  |         |          |          |         |             |
| age of av.: | 91.2   | 111.8   | 104.0    | 204.9    | 147.4   | 115.4       |
| 1/          | All cotton other than American, Indian, and Egyptian |         |          |          |         |             |
| 2/          | Preliminary  |         |          |          |         |             |

Since indications in October are that the world consumption of American cotton during the 1936-37 season will exceed production, the world supply of American cotton in the 1937-38 season is likely to be even smaller than the comparatively small supply of the current season unless the crop in 1937 is larger than in 1936. The supply of foreign cotton in 1937-38 will probably be somewhat larger than the record supply of the current season if the 1937-38 crop is as large as in 1936-37, since the carry-over of such cotton on August 1, 1937 is expected to be larger than a year earlier.

Prices and IncomeDomestic prices and income improving

The average price of Middling 7/8 inch cotton in the 10 designated markets was 0.81 cent per pound less in 1935-36 than in the previous season, but was the highest with one exception since 1929-30 although still about 30 percent less than the average for the 10 years ended 1932-33. The influence on prices of the smaller supply of American cotton and an improvement in general demand conditions apparently more than offset the effect of a prospective increase in the supply of foreign cotton with the result that domestic prices in the first 2 months of the current season averaged one-half of a cent above last season's average and 1 cent above the corresponding period a year earlier.

The weighted average price received by producers last season of approximately 11.1 cents was 1.3 cents less than for the previous season. Farm income from the sale of lint cotton, however, was practically as large as the previous season and was 40 percent larger than in 1932-33, the low point of the depression. But with a 19 percent smaller crop and a 30 percent lower price, this income was only a little over one-half as large as the average for the 1923-32 period. In addition to the price of 11.1 cents received by producers from the sale of the 1935-36 crop, they received price-adjustment payments from the Government. These payments, amounting to \$39,100,000, were equal to 0.74 cent per pound for the total crop. Cottonseed prices and income from cottonseed were slightly lower last season than in 1934-35, and materially lower than the 10-year average ended 1932-33.

| Cotton: Domestic prices and income, specified periods |                       |             |   |           |            |                   |                |  |
|---|-----------------------|-------------|---|-----------|------------|-------------------|----------------|--|
| Season beginning Aug. 1                               | :Spot prices of lint: |             | Gross income received by producers from |           |            |                   |                |  |
|   | : Weighted:           | : Average : | :Total, including Govern-               |           |            |                   |                |  |
|   | : average :           | : for 10 :  | Cotton:                                 | Cotton-   | Govern-    | : Adjusted to the |                |  |
|   | : received:           | : desig- :  | lint :                                  | seed :    | ment :     | Actual :          | :1910-14 level |  |
|   | : by :                | : nated :   | :                                       | :         | : pay- :   | : of prices paid  | :by farmers    |  |
|   | :producers:           | :markets :  | :                                       | :         | : nents :  | :                 | :              |  |
|   | :Cents per:           | :Cents per: | :Million:                               | :Million: | :Million:  | :Million:         | :Million       |  |
|   | : pound :             | : pound :   | :dollars:                               | :dollars: | :dollars:  | :dollars:         | :dollars       |  |
| Average   | :                     | :           | :                                       | :         | :          | :                 | :              |  |
| 1923-24   | :                     | :           | :                                       | :         | :          | :                 | :              |  |
| to  | :                     | :           | :                                       | :         | :          | :                 | :              |  |
| 1932-33   | 16.0                  | 16.53       | 1,113.5                                 | 121.8     | -----      | 1,235.3           | 863.8          |  |
| 1932-33   | 6.5                   | 7.15        | 424.0                                   | 40.3      | -----      | 464.3             | 450.8          |  |
| 1933-34   | 10.2                  | 10.81       | 663.5                                   | 53.9      | 178.7      | 896.1             | 759.4          |  |
| 1934-35   | 12.4                  | 12.36       | 595.7                                   | 111.4     | 115.4      | 822.5             | 652.8          |  |
| 1935-36   | 11.1                  | 11.55       | 590.1                                   | 107.7     | 163.5 1/   | 861.3             | 706.0          |  |
| 1936-37 2/  | :                     | 12.06       | :                                       | :         | :          | :                 | :              |  |
|   | : Percent             | : Percent   | :Percent:                               | :Percent: | : Percent: | : Percent:        | : Percent      |  |
| 1935-36   | :                     | :           | :                                       | :         | :          | :                 | :              |  |
| as a  | :                     | :           | :                                       | :         | :          | :                 | :              |  |
| percent-  | :                     | :           | :                                       | :         | :          | :                 | :              |  |
| age of av.:   | 69.4                  | 69.9        | 53.0                                    | 88.4      | --         | 69.7              | 81.7           |  |

1/ Includes price adjustment payments amounting to \$39,100,000.

2/ Average of August and September.

The combined income to cotton producers from lint and seed, together with total Government payments in 1935-36 was 5 percent larger than the previous season and 86 percent larger than in 1932-33 but 30 percent less than the average for the 10 years ended 1932-33. Excluding Government payments, the farm income from last year's crop was 50 percent above the low income from the 1932 crop but 43 percent below the 10-year average. The gross income from cotton and cottonseed in 1935-36, including Government payments, when adjusted for changes in the price of things farmers buy, however, was 8 percent above the previous season, 57 percent above the low point of 1932-33 but 18 percent below the average.

With the more favorable price situation existing in the early part of the current season and with the domestic crop now (October) expected to be 1,000,000 bales larger than a year earlier, the indications are that the farm income from the sale of the 1936 crop will probably be the largest since 1929-30.

#### Liverpool prices vary as between growths

Prices of American cotton in Liverpool declined in 1935-36 and were lower relative to the principal foreign growths than in the 1934-35 season, but somewhat higher relative to Indian and Egyptian Uppers than on the average during the 10-year period 1923-24 to 1932-33. During the first 2 months of the current season prices of American cotton were higher relative to several of the important foreign growths than during the 1935-36 season. While the prices were more favorable to the consumption of foreign growths than during the 1935-36 season, they were as a whole less favorable than in 1934-35. Increased prospective supplies of foreign cotton along with the decreased supply of American are expected to depress the price of most foreign cottons in relation to the prices of American for at least a substantial part of the 1936-37 season.

Cotton: Spot price per pound of specified growths at Liverpool

| Season      | Actual prices of spot cotton |          |           |            |         | As a percentage of |           |  |
|-------------|------------------------------|----------|-----------|------------|---------|--------------------|-----------|--|
|             | American:                    | Indian:  | Egyptian: | Brazilian: |         | American Middling  |           |  |
| beginning   | Middling:                    | average: | Uppers:   | Sao Paulo: | Indian: | Egypt-             | Brazilian |  |
| Aug. 1      | 7/8                          | of 3     | F.G.F.    | Fair       | 1/      | ian                |           |  |
|             | inch                         | types    |           |            |         |                    |           |  |
| Average     | Cents                        | Cents    | Cents     | Cents      | Percent | Percent            | Percent   |  |
| 1923-24 to: |                              |          |           |            |         |                    |           |  |
| 1932-33     | 18.86                        | 14.67    | 23.82     | 18.22      | 81.3    | 125.8              | 96.8      |  |
|             |                              |          |           |            |         |                    |           |  |
| 1932-33     | 8.52                         | 7.14     | 10.61     | 8.61       | 86.7    | 125.0              | 101.0     |  |
| 1933-34     | 12.47                        | 8.87     | 13.77     | 12.28      | 74.0    | 110.5              | 98.8      |  |
| 1934-35     | 14.24                        | 10.02    | 15.49     | 13.86      | 72.3    | 108.8              | 97.4      |  |
| 1935-36     | 13.50                        | 10.36    | 15.49     | 13.45      | 79.5    | 114.8              | 99.8      |  |
| 1936-37 2/  | 14.34                        | 10.75    | 16.37     | 13.58      | 78.1    | 114.2              | 94.7      |  |

1/ As a percentage of American Middling and Low Middling.

2/ Average of August and September.



## STAPLE SITUATION

The domestic supply of American Upland cotton for the 1936-37 season as indicated by data available in late October, showed a decrease for staples shorter than 1-inch, whereas, the indicated supply of staples 1-inch and longer increased. So far as the world supply situation is concerned, however, the indicated decrease in the supply of very short staple American cotton is more than offset by an increase in the supply of Indian and Chinese cotton, most of which is of the shorter staples.

Cotton: Domestic Supply<sup>1/</sup> by Staple Lengths of American Upland

|              |   | Staple length (inches) |   |              |   |              |   |              |   |              |   |              |   |              |
|--------------|---|------------------------|---|--------------|---|--------------|---|--------------|---|--------------|---|--------------|---|--------------|
| Year         | : | Shorter                | : | 7/8          | : | 15/16        | : | 1            | : | 1-1/16       | : | 1-1/8        | : | 1-3/16       |
| beginning    | : | than                   | : | and          | : | and          | : | and          | : | and          | : | and          | : | and          |
| Aug. 1       | : | 7/8                    | : | 29/32        | : | 31/32        | : | 1-1/32       | : | 1-3/32       | : | 1-5/32       | : | longer       |
|              | : | <u>1,000</u>           | : | <u>1,000</u> | : | <u>1,000</u> | : | <u>1,000</u> | : | <u>1,000</u> | : | <u>1,000</u> | : | <u>1,000</u> |
|              | : | <u>bales</u>           | : | <u>bales</u> | : | <u>bales</u> | : | <u>bales</u> | : | <u>bales</u> | : | <u>bales</u> | : | <u>bales</u> |
| Av. 1928-29: | : |                        | : |              | : |              | : |              | : |              | : |              | : |              |
| to 1932-33:  | : | 2,026                  | : | 7,349        | : | 4,692        | : | 2,744        | : | 1,342        | : | 842          | : | 305          |
|              | : |                        | : |              | : |              | : |              | : |              | : |              | : |              |
| 1932-33:     | : | 1,136                  | : | 8,179        | : | 6,375        | : | 3,480        | : | 1,626        | : | 1,169        | : | 297          |
| 1933-34:     | : | 723                    | : | 6,990        | : | 6,197        | : | 3,795        | : | 1,492        | : | 1,204        | : | 320          |
| 1934-35:     | : | 1,017                  | : | 6,017        | : | 4,168        | : | 2,894        | : | 1,503        | : | 1,233        | : | 278          |
| 1935-36:     | : | 1,843                  | : | 6,004        | : | 4,434        | : | 2,679        | : | 1,399        | : | 906          | : | 264          |
| 2/ 1936-37:  | : | 1,567                  | : | 5,372        | : | 3,693        | : | 3,184        | : | 1,844        | : | 952          | : | 326          |

1/ Carry-over plus estimated production.

2/ Preliminary estimate based on data available in October (to be revised).

Premiums for the medium and longer staples increased in 1935-36 with improvements in industrial activity and increased consumer incomes, and in August and September 1936 were substantially greater than the average for the previous season, and also materially greater than the average for the 5 years ended 1932-33. Prices of important long staple cotton of foreign growths compared with prices of American Middling in Liverpool averaged higher during August and September of the 1936-37 season than a year earlier, but were substantially lower than the average for the 5-year period. A continued relatively strong demand for fine clothing and for industrial goods requiring the longer staples is favorable to maintaining relatively high premiums for the longer staple cotton throughout most of the 1936-37 season, despite the greater competition from other fabrics and technological changes which have increased the substitution of shorter for longer staples.



## Cotton: Staple Premiums and Discounts from Prices of 7/8 inch

| Year              | Disc. <u>1/</u> | Prices        | Premiums for staples <u>3/</u> |       |        |       |        |       |
|-------------------|-----------------|---------------|--------------------------------|-------|--------|-------|--------|-------|
| beginning         | for             | of Mid.       |                                |       |        |       |        |       |
| Aug. 1            | 13/16 in.       | 7/8 <u>2/</u> | 15/16                          | 1     | 1-1/16 | 1-1/8 | 1-3/16 | 1-1/4 |
|                   | Cents           | Cents         | Cents                          | Cents | Cents  | Cents | Cents  | Cents |
| Av. 1928-29       |                 |               |                                |       |        |       |        |       |
| to 1932-33        | 0.52            | 11.42         | 0.34                           | 0.83  | 1.39   | 1.88  | 2.87   | 5.82  |
| 1932-33           | .21             | 7.15          | .12                            | .38   | .73    | 1.06  | 2.01   | 4.25  |
| 1933-34           | .23             | 10.81         | .22                            | .62   | 1.10   | 1.55  | 2.69   | 5.12  |
| 1934-35           | .36             | 12.36         | .32                            | .81   | 1.15   | 1.40  | 2.36   | 4.79  |
| 1935-36           | .39             | 11.55         | .36                            | .85   | 1.21   | 1.68  | 2.51   | 4.60  |
| <u>4/</u> 1936-37 | .56             | 12.06         | .45                            | .94   | 1.54   | 2.41  | 3.41   | 4.73  |

1/ Average discount at Houston, Galveston and New Orleans.

2/ Ten-market average.

3/ Average premiums at Memphis.

4/ Average for August and September.

Discounts for 13/16 inch staples increased during recent years, and in August and September 1936, were substantially greater than in the previous season and were somewhat greater than the average for the 5 years ended 1932-33. Prices of Indian relative to American cotton in Liverpool early in the 1936-37 season were somewhat lower than in the previous season, and were lower than the average for the 5-year period.



## THE COTTONSEED OUTLOOK FOR 1937

Press and Radio Release

Date - Nov. 8 - a.m.

The supply of cottonseed in the United States in 1936-37 is now (October) expected to be slightly larger than in the previous season, but about 25 per cent less than the average for the 5 years ended with 1932-33 and the smallest with the exception of 1934-35 and 1935-36 since 1923-24. On the whole, supplies of commodities that are most directly competitive with cottonseed products apparently will also be relatively small for the season 1936-37. This supply situation, especially if accompanied by a further increase in demand, is favorable to maintaining prices of cottonseed and cottonseed products during the current season at levels higher than the comparatively high prices of the previous season.

## Supply and price of cottonseed and specified fats and oils in United States

| Year beginning Aug. 1            | Cottonseed | Crude cottonseed oil | Crude cottonseed oil | Lard   | Four vegetable oils excluding cottonseed oil |
|----------------------------------|------------|----------------------|----------------------|--------|--|
|                                  | Weight-    | Price                | Price                | Price  | Price  |
|                                  | Supply     | of                   | of                   | of     | of   |
|                                  | 2/         | 2/                   | prime                | 3/     | Price  |
|                                  | farm       | summer               | summer               | summer | imports                                      |
|                                  | price      | yellow               | yellow               | yellow | season                                       |
| 5-year av.                       | tons       | Dollars              | pounds               | Cents  | pounds                                       |
| 1928-29 to                       |            |                      |                      |        |  |
| 1932-33                          | 6.6        | 21.50                | 1,973.5              | 6.92   | 1,843.5                                      |
|                                  |            |                      |                      |        |  |
| 1934-35                          | 4.5        | 34.71                | 1,849.2              | 9.60   | 1,201.5                                      |
| 1935-36                          | 4.8        | 31.37                | 1,669.6              | 9.82   | 946.3  |
| 1936-37 4/                       | 5.2        | 32.40                | 1,611.7              | 10.10  | 950.0  |
|                                  |            |                      |                      |        |  |
| 1936-37 as percentage of average | 78.8       | 150.7                | 81.7                 | 146.0  | 51.5   |
|                                  |            |                      |                      |        |  |

1/ Stocks of crude oil plus refined oil reduced to a crude basis.

2/ Stocks on August 1 plus domestic production.

3/ Stocks on July 1 plus production for year beginning July 1.

4/ Preliminary estimate of supply and average of August and September prices.

Cottonseed Oil

The indicated supply of cottonseed oil, the principal product of cottonseed, for the season 1936-37 is somewhat less than in the previous season, and about 18 percent below the average for the 5 years ended 1932-33. The production of cottonseed oil this season is expected to be slightly larger than last year but this increase is apparently more than offset by a considerable reduction in stocks on August 1. Prices of cottonseed oil in August and September 1936 averaged slightly higher than last season, and were almost 50 percent higher than the 5-year average. In the last two seasons domestic production of cottonseed oil was supplemented by net imports, whereas in earlier seasons exports were of considerable volume and imports were negligible. Net imports of cottonseed oil in 1935-36 were approximately 131,800,000 pounds as compared with 126,000,000 pounds in the preceding season. In the 5 years ended with 1932-33, however, net exports averaged about 35,000,000 pounds annually.

Cottonseed oil is used principally in the production of compounds and vegetable shortenings, in which its chief competitors are lard, vegetable oils, edible tallows and fish oils. The commercial supply of lard in the 1936-37 season is estimated to be slightly larger than the extremely small supply in the previous season, but only a little over half as large as the average supply for the 5 years ended 1932-33. Production of lard is expected to be about the same as in the previous season, but stocks of lard on June 30 were considerably above those on the corresponding date last season. The decline in exports of lard from an average of 653,000,000 pounds in the 5 years ended 1932-33 to 90,000,000 pounds in 1935-36 indicates that the marked reduction in domestic supplies of lard during recent years has not resulted in a proportional decrease in domestic competition of lard with cottonseed oil. Wholesale prices of lard at Chicago in August and September averaged slightly lower than during last season, but about 28 percent higher than the 5-year average.

Total stocks on June 30, 1936 of the principal vegetable oils which compete more directly with cottonseed oil (peanut, coconut, corn, and soybean) were about 10 percent larger than on the corresponding date in 1935 and substantially above the 5-year average. It seems probable that high prices for cottonseed oil and lard will tend to bring about a volume of factory production and imports of these vegetable oils which, accompanied by comparatively large stocks, will result in total supply in 1936-37 being as large as or larger than in 1935-36.

#### Hulls and Meals

Conditions in October indicate that the supply of cottonseed cake and meal in 1936-37 will be about the same as last season's supply, but about 13 percent smaller than the average supply in the 5 years ended 1932-33. The supply of cottonseed hulls this season is expected to be about the same as in 1935-36, but about 11 percent below the 5-year average. Stocks of hulls were materially smaller on August 1, 1936 than a year earlier, but this reduction in stocks is expected to be about offset by an increase in production during the current season. Prices of cottonseed hulls and meal in the first two months of the current season averaged substantially higher than in the previous season, and in the 5-year period ended 1932-33. The comparatively small supply of cake meal and hulls, and the severe decline in the supply of competing feeds as a result of drought are favorable to maintaining the comparatively high prices of these products throughout most of the current season. (See Feed Outlook.)



## Supply of cottonseed hulls, meal, and linters in the United States

| Year<br>beginning<br>Aug. 1 | Hulls      |            | Cake and Meal |            | Linters       |                  |           |
|-----------------------------|------------|------------|---------------|------------|---------------|------------------|-----------|
|                             | Supply     | Price      | Supply        | Price      | Supply        | Average price of |           |
|                             | 1/         |            | 1/            | of meal:   | 1/            | No. 2            | No. 6     |
|                             | : Million: |            | : Million:    |            | : Mil. run-   |                  |           |
| 5-year average              | : tons     | : Dollars: | : tons        | : Dollars: | : ning bales: | : Cents          | : Cents   |
| 1928-29 to 1932-33:         | 1.4        | : 9.12     | : 2.3         | : 26.66    | : 1.0         | : 3.91           | : 1.85    |
| 1934-35.....                | .9         | : 13.52    | : 1.7         | : 32.30    | : .9          | : 5.75           | : 4.05    |
| 1935-36.....                | 1.1        | : 9.88     | : 1.9         | : 22.41    | : .9          | : 5.40           | : 3.44    |
| 1936-37 2/.....             | 1.1        | : 13.00    | : 2.0         | : 31.06    | : 1.0         | : 5.78           | : 3.60    |
|                             | : Percent: | : Percent: | : Percent:    | : Percent: | : Percent     | : Percent:       | : Percent |
| Percentage 1936-37          |            |            |               |            |               |                  |           |
| is of average.....          | 78.6       | : 142.5    | : 87.0        | : 116.5    | : 100.0       | : 147.8          | : 194.6   |

1/ Stocks on August 1 plus domestic production.

2/ Preliminary estimate of supply and average of August and September prices.

Linters

The supply of linters in the 1936-37 season is expected to be slightly larger than in the previous season, and about the same as the average for the 5 years 1928-29 to 1932-33. That a production of linters did not decline in the last few years in proportion to the production of lint cotton is largely accounted for by a closer delinting of the seed. The average price of linters at western mill points in August and September was slightly higher than for last season and substantially higher than the average for the 5 years ended with 1932-33.



## THE OUTLOOK FOR FEED CROPS AND LIVESTOCK

### Summary

The supply of feed grains per grain-consuming animal unit for the current feeding season is about the same as in 1934 but approximately 33 percent less than a year ago and the 1928-32 average. On the other hand the hay supply per hay-consuming animal unit is nearly one-third more than in 1934 and only 5 percent less than the 1928-32 average. The supply of by-product feeds per grain-consuming animal unit is expected to be about 10 percent larger than in 1934-35 and the 5-year average.

The total number of animal units on farms January 1, 1937, is expected to be about the same as a year earlier. There probably will be fewer cattle, horses, and mules, but more hogs, sheep, and chickens. Numbers of animals fed for market this year, August 1936-July 1937, will include more hogs and lambs but fewer cattle than were fattened in 1935-36.

Shortage in present feed supplies is primarily in grain. Hay supplies are approximately normal. Supplies of by-product feeds are about average. Imports of corn are expected to be above those of 1934-35 when they constituted about 2.5 percent of the season's production of corn. Pastures probably will furnish almost normal feed supplies this fall and winter except in the Northern Great Plains region. An increase in corn and barley acreage is expected in 1937.

Both cattle and hogs fed for market this year will receive less grain per animal than last year. Cattle-feeding operations will be confined largely to the production of short-fed cattle. Commercial utilization of corn in the year beginning October 1, 1936, probably will be less than in the previous year but larger than in 1934.

Prices of all feed grains, by-product feeds and of hay will remain high during most of the 1936-37 marketing year. An active domestic and foreign demand for milling barley is expected to maintain prices for barley at relatively high levels until the 1937 crop is available. Inasmuch as the shortage of hay this year is less acute than in 1934, hay prices, while exceeding those of last year, are not likely to be as high as those following the 1934 drought unless the coming winter is abnormally severe. If feed grain and hay production in 1937 is near average, a greater than normal seasonal decline in prices of feed grains and of hay may be expected in the summer and fall of 1937.

The livestock-grain price ratio probably will be generally unfavorable to feeding during the coming winter and early spring, but later in the year it probably will shift so as to be favorable to feeding. If feed-grain production during the next few years is approximately average, the position of livestock producers will be more favorable than that of cash-grain farmers. It will take several years for livestock production to regain the level existing from 1930 to 1934. The Outlook for dairy-men, however, is somewhat less favorable than for producers of meat animals.

### Upward Trend of Livestock Numbers is Checked

Decreased feed-crop production in 1936, a result of the drought, checked the upward trend of livestock numbers in progress early in the year. The total number of animals on farms January 1, 1937, therefore, is expected to be about the same as a year earlier. There probably will be fewer cattle, horses, and mules, but more hogs, sheep, and chickens.

Number of animal units on farms, January 1

| Item            | : Expected :       | :                  | :                  | : Average        |
|-----------------|--------------------|--------------------|--------------------|------------------|
|                 | : 1937 :           | : 1936 :           | : 1935 :           | : 1928-33        |
|                 | : <u>Million</u> : | : <u>Million</u> : | : <u>Million</u> : | : <u>Million</u> |
| Grain-consuming | : Above 1936:      | 124                | : 121              | : 139            |
| Hay-consuming   | : Below 1936:      | 80                 | : 81               | : 79             |

Numbers of animals fed for market in the year August 1936 to July 1937, will include more hogs and lambs but fewer cattle than in 1935-36. The total pig crop in 1937 is expected to be less than in 1936. As compared with a year ago, substantial decrease in the 1937 spring pig crop will be partially offset by an increase in the fall pig crop of 1937.

### Farm-Grown Feed Supplies Generally Short

Shortage in present feed supplies is primarily in grain. Hay supplies are well above 1934 and not much below the average of 1928-32.

Farm-Grown Feed supplies

| Item                                    | :                  | :                  | :                  | : Average        |
|---|--------------------|--------------------|--------------------|------------------|
|   | : 1936 :           | : 1935 :           | : 1934 :           | : 1928-32        |
|   | : <u>Million</u> : | : <u>Million</u> : | : <u>Million</u> : | : <u>Million</u> |
|   | : <u>tons</u> :    | : <u>tons</u> :    | : <u>tons</u> :    | : <u>tons</u>    |
| Feed grains, all, year beginning July 1 | : 76               | : 100              | : 70               | : 114            |
| Corn           "       "       "        | : 53               | : 70               | : 55               | : 82             |
| Oats           "       "       "        | : 17               | : 20               | : 10               | : 22             |
| Hay--year beginning May 1               | : 84               | : 92               | : 66               | : 90             |

The production of corn this season in the 12 North Central States is about equal to the 1934 crop, but is only about half that of the 1928-32 average. In these States the production of oats this season was about two-thirds of the 1928-32 average. In 1934 it was only about one-third average.

The supply of feed grains per grain-consuming animal unit for the current feeding season is about the same as in 1934 but approximately 25 percent less than a year ago and the 1928-32 average. On the other hand, the hay supply per hay-consuming animal unit is nearly one-third more than in 1934 and only 5 percent less than the 1928-32 average.



# Outlook for Feed Crops and Livestock - 3.

## Annual Farm-Grown Feed Supplies per Animal Unit

| Item  | Average |      |      |         |
|---|---------|------|------|---------|
|   | 1936    | 1935 | 1934 | 1928-32 |
|   | Tons    | Tons | Tons | Tons    |
| Feed-grain supplies per grain-consuming animal unit | .60     | .81  | .58  | .82     |
| Hay supplies per hay - consuming animal unit        | 1.08    | 1.15 | .82  | 1.14    |

Both cattle and hogs fed for market this year will receive less grain per animal than last year as hogs will be marketed at lighter-than-average weights and cattle-feeding operations will be confined largely to the production of short-fed cattle. Hay and roughage will constitute a greater-than-usual proportion of cattle fattening rations.

Farmers have used more of their available supply of feed grains between July 1 and October 1 this season than during the same period in 1934. An increase of 152,000,000 bushels in the quantity of oats fed during that period this season, as compared with 1934, was only partially offset by a decrease of 50,000,000 bushels in the quantity of corn fed.

## By-Product Feed Supplies Above Average

Total supplies of by-product feeds probably will be about the same as last year and the 1928-32 average. Supplies of wheat feeds this season are expected to be about 6 percent below the 5-year average and those of high-protein feeds about 6 percent above. Supplies of both kinds of feeds are about the same as last year. It is estimated in trade reports that approximately 50,000,000 gallons of molasses will be available for livestock feeding. No comparable data on molasses are available for previous years.

## By-product feed supplies for domestic consumption 1/

| Item                                | Year beginning July 1 |            |            |            |
|-------------------------------------|-----------------------|------------|------------|------------|
|                                     | 1936                  | 1935       | 1934       | 1928-32    |
|                                     | (Preliminary)         |            |            | Average    |
|                                     | 1,000 tons            | 1,000 tons | 1,000 tons | 1,000 tons |
| Wheat offal                         | 4,500                 | 4,477      | 4,363      | 4,805      |
| Cottonseed cake meal                | 1,800                 | 1,591      | 1,558      | 2,020      |
| Soybean cake and meal               | 450                   | 548        | 249        | 114        |
| Linseed cake and meal               | 200                   | 260        | 192        | 319        |
| Gluten feed and meal                | 500                   | 515        | 450        | 550        |
| Brewers and distillers dried grains | 310                   | 248        | -          | -          |
| Dried and molasses beet pulp        | 230                   | 216        | 248        | 229        |
| Other by-product feeds              | 410                   | 527        | 378        | 411        |
| Total                               | 8,400                 | 8,382      | 7,436      | 8,448      |

1/ Excluding hominy and animal protein feeds.

The abnormally mild winter of 1934-35 made it possible for farmers to conserve short feed supplies following the 1934 drought to an unusual degree.

## Outlook for Feed Crops and Livestock - 4.

### Foreign Situation

Because of good crops in the Danubian exporting countries, the production of feed grains in Europe is greater in 1936 than in 1935, though slightly less than the 1930-34 average. Stocks of feed grains in important European countries, however, are smaller than last year and well below the average of recent years. Exports of feed grains from Russia are expected to be less than in 1935-36.

Numbers of hogs in Europe are 5 percent higher than a year ago. In Germany, the most important hog-producing country, the difficulties involved in the importation of feedstuffs make for greater dependence upon home-produced feeds.

United States imports of corn in 1934-35, although at record levels, were small relative to the drop in domestic production caused by the drought. Imports in 1934-35 were only about 2.5 percent of the small crop harvested in 1934. This year, following an equally severe drought, imports are expected to be larger than in either of the last two years. They will be stimulated by high prices in the United States and the availability of relatively large foreign supplies, particularly in Argentina. Because of the shortage in domestic corn for shipment out of the corn belt, other sections of the country, particularly the coastal regions, will depend more on imported corn. These imports, in addition to supplementing domestic feed supplies of livestock producers and feeders in those deficit regions, will also permit the retention of much needed supplies in the corn belt, which will prevent to some extent an excessive liquidation of livestock.

#### United States production and imports of corn, October-September

| Item                           | Unit      | 1936-37        | 1935-36 | 1/1934-35 |
|--------------------------------|-----------|----------------|---------|-----------|
| U. S. Corn production .....    | Mill. bu. | 1,509          | 2,292   | 1,478     |
| Total U. S. imports of corn .. | "         | above 1934-35: | 17      | 37        |
| U. S. imports of corn from     | :         | :              | :       | :         |
| Argentina .....                | "         | above 1934-35: | 15      | 26        |
| Percentage total imports are   | :         | :              | :       | :         |
| of production .....            | Percent   | -              | 0.74    | 2.50      |
| Available for export, Argen-   | :         | :              | :       | :         |
| tina October 1 to April 1 ..   | Mill. bu. | 207            | 185     | 82        |
| Total Argentina exports        | :         | :              | :       | :         |
| October 1 to April 1 .....     | "         | above 1935-36: | 149     | 82        |
|                                | :         | :              | :       | :         |

1/ Imports 11 months total.

### Pastures are Improving

Good rains during September and the first half of October over all parts of the drought area except the Northern Great Plains region brought about a marked recovery of pastures. Outside of the Northern Great Plains region, about the usual amount of grazing from pastures, ranges, and winter grains seems likely to be available during the late fall, winter, and early spring months.

Commercial Demand for Feed Grains Strong

Commercial utilization of barley for malt and corn for wet process grindings and alcoholic products has increased substantially since the period 1930-34. These uses represent approximately half of the commercial consumption of corn and nearly all of such uses of barley. Annual data on other commercial uses of corn and barley are not available.

Corn used for wet process grindings and alcohol products, and barley used in production of malt

| Item                    | 1936            | 1935            | 1934            | 1933            | 1930-34         | 1924-29         |
|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                         | Million bushels | Million bushels | Million bushels | Million bushels | Million bushels | Million bushels |
| Amount used:            |                 |                 |                 |                 |                 |                 |
| Corn (year beg. Nov. 1) | Below 1935      | 110.0           | 85.7            | 88.3            | 80.9            | 89.5            |
| Barley (" " July 1)     | Below 1935      | 54.1            | 47.3            | 41.0            | 30.7            | 21.5            |
|                         | Percent         | Percent         | Percent         | Percent         | Percent         | Percent         |
| Proportion of crop:     |                 |                 |                 |                 |                 |                 |
| Corn                    | Above 1935      | 4.8             | 5.8             | 3.7             | 3.4             | 3.5             |
| Barley                  | Above 1935      | 19.2            | 40.5            | 26.6            | 14.4            | 9.4             |

1/Preliminary

Though supported by a strengthening demand, as evidenced by continued large purchases with prices rising, corn products will meet with increased competition from substitute products as the marketing year advances. It is probable that commercial utilization of corn in the year beginning October 1, 1936, will be less than in the previous year but larger than in 1934.

Feed Prices Advance

Having advanced sharply as drought reduced production in large areas of the Middle West, prices of all feed grains and of hay were higher on September 15, 1936, than a year earlier, and they are expected to remain relatively high as compared with last year during most of the 1936-37 marketing year. Under somewhat similar short feed-supply conditions in 1901 and 1934, corn prices were relatively high during the winter months as compared with the last half of the same marketing year. A somewhat similar seasonal trend in corn prices is expected this year unless crop prospects are poor again next year. Relatively strong demand for corn from commercial processors, in conjunction with small supplies, is expected to result in cash prices commanding substantial premiums over 1936 crop futures. Furthermore, limited supplies of good-quality corn will increase the margin between average farm prices and prices of better grades. An active domestic and foreign demand for malting barley in addition to short feed supplies is expected to maintain barley prices at relatively high levels until the 1937 crop is available. Prices of by-product feeds probably will continue high during the winter as they are, to a considerable extent, dependent upon the prices of feed grains. Inasmuch as the shortage of hay is less acute this year than in 1934, hay prices are not likely to be as high during the winter months as those following the 1934 drought unless the coming winter is abnormally severe. They will continue higher, however, than last year.

Weighted Average Price per Bushel No. 3 Yellow Corn,  
Chicago, 1901-03 and 1934-36

| Year | :Jan.  | :Feb.  | :Mar.  | :Apr.  | :May   | :June  | :July  | :Aug.  | :Sept. | :Oct.  | :Nov.  | :Dec.  |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|      | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents | :Cents |
| 1901 | :      | :      | :      | 42     | 43     | 42     | 48     | 56     | 56     | 56     | 60     | 64     |
| 1902 | 62     | 59     | 59     | 62     | 62     | 63     | 65     | 60     | 59     | 60     | 53     | 46     |
| 1903 | 43     | 43     | 41     | :      | :      | :      | :      | :      | :      | :      | :      | :      |
| 1934 | :      | :      | :      | 47     | 51     | 58     | 64     | 76     | 80     | 78     | 83     | 93     |
| 1935 | 91     | 88     | 83     | 89     | 88     | 85     | 85     | 81     | 83     | 82     | 62     | 59     |
| 1936 | 61     | 61     | 61     | 63     | 63     | 64     | 86     | 114    | 112    | :      | :      | :      |

Price Relationships Will be Favorable to Feeding 1/

The livestock-grain price ratio probably will be generally unfavorable to feeding during the coming winter and early spring but later in the year it probably will shift so as to be favorable to feeding. If feed-grain and hay production in 1937 is near average, greater-than-normal seasonal decline in prices of feed grains and hay may be expected in the summer and fall of 1937. On the other hand, hog prices will average higher in 1937 than in 1936 and the summer peak will be reached somewhat later than in recent years. Also prices of all kinds of cattle, especially well-finished cattle, are expected to be higher during most of 1937 than a year earlier. Farm prices of butterfat probably will continue relatively low in relation to feed prices during the coming winter, but the long-time outlook is favorable to dairying. If feed-grain production during the next few years is fairly normal, and if livestock production is reduced as much as now seems probable, the position of livestock producers, generally, will be more favorable than that of cash-grain farmers. Producers of meat animals probably will be in a somewhat more advantageous position, however, than dairymen until hog numbers are increased to more normal numbers and cattle herds are replenished.

Hog-Corn Price Ratios, United States 1/

| Year | :March 15 | :May 15 | :July 15 | :Sept. 15 | :Oct. 15 | :Dec. 15 |
|------|-----------|---------|----------|-----------|----------|----------|
| 1934 | 8.2       | 6.5     | 6.7      | 7.8       | 6.8      | 6.0      |
| 1935 | 9.8       | 9.3     | 10.2     | 13.2      | 13.3     | 16.5     |
| 1936 | 16.3      | 14.3    | 11.4     | 9.2       | -        | -        |

1/Number of bushels of corn which could have been bought with farm value of 100 pounds of hogs. On the average, 100 pounds of hogs have about the same value as 11 bushels of corn. The hog processing tax held the ratios down in 1934 and 1935.

Acreage in 1937 Probably Increased

It is reasonable to expect barley acreage to be increased in order to meet the acute need for grain before the corn harvest. The rather definite tendency to increase the acreage of corn following years of severe drought and high prices for corn is likely to be in evidence in 1937.

1/The reader is referred to other commodity sections of the Agricultural Outlook for a discussion of prices of meat animals, and dairy and poultry products.



# Outlook for Feed Crops and Livestock - 7.

Note: Inasmuch as the revised record of the acreage, yield, and production of the principal feed crops for the period 1924 to 1935 may not be readily available to the readers of this report, a series of tables of the above and other pertinent data are appended hereto. For a complete report of the revisions see "General Crop Revisions, crop years 1924-1935," issued by the Crop Reporting Board, Bureau of Agricultural Economics, United States Department of Agriculture.

## Feed Grain Supplies, Feeding Year Beginning July 1.

| Year           | Corn      | Oats      | Barley    | Grain Sorghums | Total     |
|----------------|-----------|-----------|-----------|----------------|-----------|
|                | 1000 tons | 1000 tons | 1000 tons | 1000 tons      | 1000 tons |
| 1926           | 86,106    | 22,087    | 4,195     | 3,028          | 115,416   |
| 1927           | 85,724    | 19,928    | 5,821     | 3,585          | 115,058   |
| 1928           | 82,656    | 22,746    | 8,051     | 3,377          | 116,880   |
| 1929           | 81,533    | 20,642    | 7,105     | 2,302          | 111,582   |
| 1930           | 68,014    | 22,689    | 7,485     | 1,752          | 99,940    |
| 1931           | 80,891    | 20,671    | 6,527     | 3,182          | 111,271   |
| 1932           | 96,746    | 22,292    | 8,764     | 3,073          | 130,875   |
| 1933           | 85,182    | 15,010    | 4,074     | 2,315          | 106,581   |
| 1934           | 55,064    | 10,400    | 3,399     | 1,126          | 69,989    |
| 1935           | 69,983    | 20,288    | 7,106     | 2,739          | 100,116   |
| 1936 <u>2/</u> | 53,243    | 16,500    | 4,978     | 1,703          | 76,424    |

1/ Supply corn and oats includes production and carry-over on July 1, the supply of barley includes production and carry-over on August 1 previous to 1934 and the carry-over on June 1 in 1934 and thereafter, the supply of grain sorghums includes only production.

2/ October 1 estimate for production.

# Feed Crops and Livestock - 8.

## Index Numbers of Wholesale Feedstuff Prices, 1923-24 to date <sup>1/</sup>

(July, 1935-June, 1936 = 100)

| Season<br>beginning<br>July | July  | Aug.  | Sept. | Oct.  | Nov.  | Dec.  | Jan.  | Feb.  | Mar.  | Apr.  | May   | June  | Average |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1923-24                     | 138.3 | 149.5 | 163.1 | 167.0 | 162.3 | 156.5 | 156.1 | 148.1 | 141.4 | 134.9 | 126.1 | 134.7 | 148.2   |
| 1924-25                     | 147.7 | 155.1 | 152.2 | 156.1 | 156.5 | 167.0 | 168.5 | 149.9 | 144.7 | 148.3 | 158.3 | 160.4 | 155.4   |
| 1925-26                     | 154.5 | 161.5 | 153.0 | 146.2 | 152.7 | 151.2 | 149.5 | 140.6 | 135.8 | 141.8 | 137.6 | 131.2 | 146.1   |
| 1926-27                     | 133.4 | 133.1 | 129.3 | 126.9 | 138.4 | 135.8 | 143.1 | 148.9 | 146.1 | 146.6 | 152.7 | 155.0 | 140.0   |
| 1927-28                     | 155.1 | 162.4 | 159.6 | 155.7 | 161.9 | 169.3 | 172.7 | 177.9 | 190.7 | 195.4 | 206.8 | 193.7 | 175.1   |
| 1928-29                     | 178.1 | 158.1 | 160.2 | 171.0 | 174.6 | 177.0 | 176.1 | 172.3 | 166.0 | 151.1 | 142.6 | 140.0 | 163.9   |
| 1929-30                     | 156.1 | 159.5 | 171.1 | 166.9 | 161.0 | 157.2 | 152.4 | 142.7 | 137.3 | 152.6 | 144.1 | 134.5 | 153.0   |
| 1930-31                     | 126.2 | 141.1 | 130.6 | 119.1 | 112.7 | 106.2 | 101.8 | 96.9  | 107.0 | 108.7 | 91.2  | 83.2  | 110.4   |
| 1931-32                     | 77.3  | 70.1  | 64.1  | 63.0  | 77.4  | 70.3  | 68.8  | 65.7  | 63.2  | 71.3  | 63.2  | 60.3  | 68.4    |
| 1932-33                     | 62.7  | 66.3  | 66.8  | 63.2  | 61.2  | 59.6  | 61.0  | 63.2  | 68.8  | 73.5  | 81.8  | 83.3  | 67.6    |
| 1933-34                     | 108.1 | 104.0 | 91.7  | 86.5  | 89.1  | 86.3  | 91.2  | 96.4  | 101.4 | 99.0  | 95.1  | 107.6 | 96.4    |
| 1934-35                     | 112.4 | 129.1 | 132.5 | 129.4 | 136.7 | 146.1 | 143.1 | 138.6 | 131.2 | 132.4 | 132.4 | 120.1 | 132.2   |
| 1935-36                     | 107.1 | 99.8  | 96.6  | 101.6 | 98.9  | 101.2 | 99.3  | 97.3  | 95.8  | 99.0  | 98.3  | 105.2 | 100.0   |
| 1936-37                     | 136.0 | 150.1 | 143.0 |       |       |       |       |       |       |       |       |       |         |

<sup>1/</sup> Statistics prior to July, 1933, are the former index calculated by the Grain, Hay and Feed Market News Service, shifted to the 1935-36 base.

Feed Crops and Livestock - 9.

Average Monthly Prices of Important By-Product Feeds  
at Principal Markets, July 1933 to Date

| Season and Month | Spring<br>Wheat<br>Bran at<br>Minneapolis | Grey<br>Shorts<br>at<br>Kansas City | Cottonseed<br>Meal, 41%<br>Protein, at<br>Memphis | Soybean<br>Meal at<br>Chicago | Linseed<br>Meal, 37%<br>Protein, at<br>Minneapolis | Gluten<br>Feed at<br>Chicago |
|------------------|---|-------------------------------------|---|-------------------------------|--|------------------------------|
| 1933-34          |   |                                     |   |                               |  |                              |
| July             | 17.50                                     | 22.25                               | 27.63   | 39.18                         | 37.53  | 21.00                        |
| Aug.             | 16.60                                     | 21.70                               | 22.90   | 39.00                         | 36.10  | 22.45                        |
| Sept.            | 14.25                                     | 20.13                               | 18.38   | 34.86                         | 31.75  | 20.74                        |
| Oct.             | 13.30                                     | 19.20                               | 16.70   | 31.63                         | 31.70  | 19.60                        |
| Nov.             | 13.50                                     | 18.84                               | 19.25   | 30.13                         | 31.88  | 20.53                        |
| Dec.             | 12.75                                     | 15.56                               | 19.23   | 30.50                         | 31.63  | 18.20                        |
| Jan.             | 14.50                                     | 15.85                               | 22.50   | 30.60                         | 32.00  | 17.80                        |
| Feb.             | 16.50                                     | 16.25                               | 24.00   | 31.50                         | 31.88  | 18.45                        |
| Mar.             | 19.00                                     | 18.94                               | 24.00   | 32.50                         | 30.13  | 19.70                        |
| Apr.             | 18.38                                     | 19.06                               | 22.00   | 33.25                         | 30.88  | 19.45                        |
| May              | 17.40                                     | 18.70                               | 21.25   | 35.60                         | 29.20  | 17.90                        |
| June             | 21.50                                     | 21.05                               | 23.25   | 34.50                         | 32.25  | 20.58                        |
| 1934-35          |   |                                     |   |                               |  |                              |
| July             | 19.90                                     | 24.35                               | 27.05   | 34.50                         | 33.40  | 21.25                        |
| Aug.             | 22.56                                     | 27.33                               | 34.81   | 37.75                         | 41.75  | 25.69                        |
| Sept.            | 22.13                                     | 28.05                               | 33.88   | 39.50                         | 44.00  | 28.20                        |
| Oct.             | 21.75                                     | 27.05                               | 33.90   | 38.52                         | 41.40  | 28.65                        |
| Nov.             | 24.25                                     | 30.75                               | 37.00   | 36.83                         | 42.00  | 30.03                        |
| Dec.             | 29.05                                     | 31.10                               | 37.75   | 41.20                         | 44.30  | 34.10                        |
| Jan.             | 27.13                                     | 38.56                               | 34.63   | 40.70                         | 43.25  | 33.70                        |
| Feb.             | 26.25                                     | 29.06                               | 33.25   | 38.45                         | 39.83  | 31.85                        |
| Mar.             | 24.90                                     | 29.06                               | 30.20   | 37.02                         | 38.38  | 27.45                        |
| Apr.             | 25.90                                     | 30.95                               | 30.45   | 33.03                         | 38.80  | 24.65                        |
| May              | 25.13                                     | 29.13                               | 30.00   | 33.20                         | 36.00  | 25.45                        |
| June             | 20.56                                     | 26.44                               | 26.95   | 31.70                         | 31.00  | 24.45                        |
| 1935-36          |   |                                     |   |                               |  |                              |
| July             | 17.60                                     | 20.55                               | 24.30   | 27.06                         | 26.50  | 22.25                        |
| Aug.             | 16.25                                     | 20.75                               | 21.50   | 24.00                         | 25.30  | 21.20                        |
| Sept.            | 15.00                                     | 22.25                               | 20.29   | 22.85                         | 24.88  | 19.95                        |
| Oct.             | 15.50                                     | 21.25                               | 23.15   | 25.62                         | 27.40  | 22.00                        |
| Nov.             | 15.50                                     | 19.19                               | 22.25   | 24.40                         | 26.63  | 23.58                        |
| Dec.             | 16.05                                     | 22.00                               | 22.19   | 25.50                         | 27.80  | 22.75                        |
| Jan.             | 15.63                                     | 20.25                               | 21.19   | 25.15                         | 27.13  | 22.14                        |
| Feb.             | 15.44                                     | 20.31                               | 20.63   | 23.90                         | 25.50  | 20.08                        |
| Mar.             | 15.70                                     | 20.05                               | 20.11   | 22.50                         | 24.20  | 18.40                        |
| Apr.             | 17.56                                     | 22.94                               | 21.38   | 23.26                         | 25.03  | 16.45                        |
| May              | 14.88                                     | 22.69                               | 21.56   | 24.78                         | 25.33  | 16.70                        |
| June             | 17.00                                     | 24.50                               | 22.43   | 26.10                         | 28.60  | 30.70                        |
| 1936-37          |   |                                     |   |                               |  |                              |
| July             | 25.75                                     | 27.12                               | 32.12   | 38.90                         | 42.12  | 28.20                        |
| Aug.             | 26.00                                     | 33.69                               | 33.94   | 44.28                         | 46.38  | 37.45                        |
| Sept.            | 23.60                                     | 31.50                               | 30.75   | 39.70                         | 46.30  | 35.55                        |
| Oct.             | 25.75                                     | 31.81                               | 29.91   | 36.90                         | 45.75  | 30.20                        |

## Feed Crops and Livestock- 10.

Corn: Acreage Harvested, Yield per Acre, Production,  
and Farm Price, United States, 1919 to Date

|              | Acreage | Yield    | Production | Farm Price    | Farm Price    |
|--------------|---------|----------|------------|---------------|---------------|
|              | 1000 A. | per acre | 1000 Bu.   | Dec. 1        | Season        |
|              |         | Bushels  |            | Cents per bu. | Average       |
|              |         |          |            |               | Cents per bu. |
| 1919         | 98,145  | 27.3     | 2,678,541  | 134.2         | 151.3         |
| 1920         | 101,359 | 30.3     | 3,070,604  | 65.6          | 61.8          |
| 1921         | 103,155 | 23.4     | 2,928,442  | 41.3          | 52.3          |
| 1922         | 100,345 | 27.0     | 2,707,306  | 65.0          | 74.5          |
| 1923         | 101,123 | 28.4     | 2,875,292  | 71.3          | 82.5          |
| 1924         | 100,420 | 22.1     | 2,223,123  | 98.0          | 106.1         |
| 1925         | 101,331 | 27.6     | 2,798,367  | 67.0          | 69.9          |
| 1926         | 99,452  | 25.6     | 2,546,972  | 63.7          | 74.5          |
| 1927         | 98,357  | 26.6     | 2,616,120  | 71.8          | 85.0          |
| 1928         | 100,336 | 26.6     | 2,665,516  | 74.6          | 84.0          |
| 1929         | 97,805  | 25.8     | 2,521,032  | 77.5          | 79.9          |
| 1930         | 101,466 | 20.5     | 2,080,437  | 65.7          | 59.6          |
| 1931         | 106,774 | 24.1     | 2,573,265  | 35.9          | 32.0          |
| 1932         | 110,525 | 26.5     | 2,926,871  | 19.3          | 31.9          |
| 1933         | 105,724 | 22.7     | 2,396,525  | 39.3          | 52.2          |
| 1934         | 92,133  | 16.0     | 1,478,027  | 78.6          | 81.5          |
| 1935         | 95,333  | 24.0     | 2,291,629  | --            | 59.2          |
| Oct. 1, 1936 | 98,517  | 15.3     | 1,509,362  | --            | --            |

Oats: Acreage Harvested, Yield per Acre, Production,  
and Farm Price, United States, 1919 to Date

|              | Acreage | Yield    | Production | Farm Price    | Farm Price    |
|--------------|---------|----------|------------|---------------|---------------|
|              | 1000 A. | per acre | 1000 Bu.   | Dec. 1        | Season        |
|              |         | Bushels  |            | Cents per bu. | Average       |
|              |         |          |            |               | Cents per bu. |
| 1919         | 39,601  | 27.9     | 1,106,603  | 70.2          | 76.7          |
| 1920         | 42,732  | 33.8     | 1,444,291  | 45.6          | 53.8          |
| 1921         | 45,539  | 23.0     | 1,045,270  | 29.8          | 32.2          |
| 1922         | 40,324  | 28.5     | 1,147,905  | 39.0          | 37.4          |
| 1923         | 40,245  | 30.5     | 1,227,184  | 40.8          | 40.7          |
| 1924         | 41,857  | 33.8     | 1,416,120  | 47.6          | 47.8          |
| 1925         | 44,240  | 31.8     | 1,405,268  | 37.5          | 38.9          |
| 1926         | 42,854  | 26.9     | 1,152,911  | 39.2          | 40.0          |
| 1927         | 40,350  | 27.1     | 1,093,221  | 44.3          | 47.1          |
| 1928         | 40,128  | 32.7     | 1,312,914  | 40.3          | 40.7          |
| 1929         | 38,153  | 29.2     | 1,113,050  | 42.5          | 41.8          |
| 1930         | 39,850  | 32.0     | 1,274,698  | --            | 32.2          |
| 1931         | 40,242  | 27.9     | 1,123,892  | --            | 21.3          |
| 1932         | 41,703  | 30.0     | 1,250,955  | --            | 15.7          |
| 1933         | 36,532  | 20.1     | 733,166    | --            | 33.5          |
| 1934         | 29,455  | 18.4     | 542,306    | --            | 48.0          |
| 1935         | 39,924  | 30.0     | 1,196,668  | --            | 26.5          |
| Oct. 1, 1936 | 34,440  | 22.8     | 783,750    | --            | --            |



Barley: Acreage Harvested, Yield per Acre, Production,  
and Farm Price, United States, 1919 to Date

|              | Acreage        | Yield           | Production      | Farm Price           | Farm Price           |
|--------------|----------------|-----------------|-----------------|----------------------|----------------------|
|              | <u>1000 A.</u> | <u>per acre</u> | <u>1000 Bu.</u> | <u>Dec. 1</u>        | <u>Season</u>        |
|              |                | <u>Bushels</u>  |                 | <u>Cents per bu.</u> | <u>Average</u>       |
|              |                |                 |                 |                      | <u>Cents per bu.</u> |
| 1919         | 6,579          | 19.9            | 131,086         | 121.5                | 124.4                |
| 1920         | 7,439          | 23.0            | 171,042         | 71.6                 | 84.4                 |
| 1921         | 7,074          | 18.8            | 132,702         | 42.0                 | 47.8                 |
| 1922         | 6,601          | 23.2            | 152,908         | 52.6                 | 49.9                 |
| 1923         | 7,151          | 22.2            | 158,994         | 53.5                 | 54.6                 |
| 1924         | 7,038          | 23.5            | 165,318         | 74.6                 | 74.2                 |
| 1925         | 8,186          | 23.5            | 192,466         | 58.6                 | 61.4                 |
| 1926         | 7,917          | 21.0            | 166,030         | 57.0                 | 57.9                 |
| 1927         | 9,465          | 25.3            | 239,071         | 67.5                 | 68.9                 |
| 1928         | 12,735         | 25.8            | 328,351         | 54.7                 | 56.8                 |
| 1929         | 13,526         | 20.7            | 279,924         | 54.4                 | 53.9                 |
| 1930         | 12,595         | 23.8            | 300,205         | --                   | 40.5                 |
| 1931         | 11,189         | 17.8            | 199,391         | --                   | 32.8                 |
| 1932         | 13,178         | 22.6            | 298,313         | --                   | 22.1                 |
| 1933         | 9,687          | 15.9            | 153,767         | --                   | 43.5                 |
| 1934         | 6,553          | 17.8            | 116,680         | --                   | 68.6                 |
| 1935         | 12,243         | 23.1            | 282,226         | --                   | 37.6                 |
| Oct. 1, 1936 | 8,827          | 16.3            | 143,916         | --                   | --                   |

Feed Crops and Livestock - 12.

Grain Sorghums (All Purposes): Acreage Harvested, Yield per Acre,  
Production and Farm Price, United States, 1919 to Date

|              | Acreage        | Yield           | Production      | Farm Price           | Farm Price           |
|--------------|----------------|-----------------|-----------------|----------------------|----------------------|
|              | <u>1000 A.</u> | <u>per acre</u> | <u>1000 Bu.</u> | <u>Dec. 1</u>        | <u>Season</u>        |
|              |                | <u>Bushels</u>  |                 | <u>Cents per bu.</u> | <u>Average</u>       |
|              |                |                 |                 |                      | <u>Cents per bu.</u> |
| 1919         | 6,295          | 19.4            | 122,330         | $\frac{1}{128.0}$    | --                   |
| 1920         | 6,540          | 20.9            | 136,367         | $\frac{1}{94.2}$     | --                   |
| 1921         | 6,124          | 18.3            | 112,273         | $\frac{1}{39.2}$     | --                   |
| 1922         | 5,496          | 13.7            | 75,530          | $\frac{1}{87.2}$     | --                   |
| 1923         | 6,354          | 13.9            | 88,466          | $\frac{1}{93.5}$     | --                   |
| 1924         | 5,970          | 16.3            | 97,166          | $\frac{1}{85.7}$     | --                   |
| 1925         | 6,721          | 13.4            | 90,390          | 75.3                 | --                   |
| 1926         | 6,768          | 16.0            | 108,136         | 54.4                 | --                   |
| 1927         | 7,015          | 18.3            | 128,028         | 62.9                 | --                   |
| 1928         | 6,649          | 18.1            | 120,621         | 61.5                 | --                   |
| 1929         | 6,394          | 12.9            | 82,214          | 70.6                 | --                   |
| 1930         | 6,589          | 9.5             | 62,570          | --                   | 56.9                 |
| 1931         | 7,483          | 15.2            | 113,649         | --                   | 26.3                 |
| 1932         | 7,966          | 13.8            | 109,745         | --                   | 29.8                 |
| 1933         | 7,307          | 11.3            | 82,685          | --                   | 51.0                 |
| 1934         | 6,830          | 5.9             | 40,225          | --                   | 99.8                 |
| 1935         | 9,335          | 10.5            | 97,823          | --                   | 52.2                 |
| Oct. 1, 1936 | 7,884          | 7.7             | 60,836          | --                   | --                   |

$\frac{1}{1}$  Farm Price November 15.

Soybeans for Grain: Acreage Harvested, Production, and  
Farm Price, United States, 1924 to Date

|      | Acreage        | Yield           | Production      | Farm Price           | Farm Price           |
|------|----------------|-----------------|-----------------|----------------------|----------------------|
|      | <u>1000 A.</u> | <u>per acre</u> | <u>1000 Bu.</u> | <u>Dec. 1</u>        | <u>Season</u>        |
|      |                | <u>Bushels</u>  |                 | <u>Cents per bu.</u> | <u>Average</u>       |
|      |                |                 |                 |                      | <u>Cents per bu.</u> |
| 1924 | 474            | 10.9            | 5,190           | 217.4                | --                   |
| 1925 | 441            | 11.6            | 5,131           | 210.7                | --                   |
| 1926 | 532            | 11.4            | 6,063           | 197.3                | --                   |
| 1927 | 621            | 12.2            | 7,596           | 167.7                | --                   |
| 1928 | 656            | 13.4            | 8,819           | 167.0                | --                   |
| 1929 | 615            | 14.1            | 8,670           | 175.0                | --                   |
| 1930 | 861            | 13.9            | 12,217          | 141.1                | --                   |
| 1931 | 986            | 15.7            | 15,463          | 51.5                 | --                   |
| 1932 | 828            | 15.8            | 13,121          | 46.1                 | --                   |
| 1933 | 847            | 13.8            | 11,670          | 72.1                 | --                   |
| 1934 | 1,216          | 15.3            | 18,627          | --                   | 102.2                |
| 1935 | 2,379          | 16.7            | 39,637          | --                   | 81.3                 |

## All Corn: Production by Geographical Divisions, 1919 to Date

|                   | North    |          | East    |          | West      |          | Twelve North |          | South    |          | Western |          |
|-------------------|----------|----------|---------|----------|-----------|----------|--------------|----------|----------|----------|---------|----------|
|                   | Atlantic | 1000 Bu. | Central | 1000 Bu. | Central   | 1000 Bu. | Central      | 1000 Bu. | Atlantic | 1000 Bu. | Central | 1000 Bu. |
| 1919              | 126,267  |          | 800,698 |          | 1,035,540 |          | 1,836,238    |          | 220,740  |          | 465,218 | 30,078   |
| 1920              | 117,332  |          | 830,695 |          | 1,335,287 |          | 2,165,982    |          | 226,309  |          | 520,991 | 39,990   |
| 1921              | 124,343  |          | 789,944 |          | 1,233,960 |          | 2,023,904    |          | 214,117  |          | 533,684 | 32,394   |
| 1922 <sup>a</sup> | 106,799  |          | 746,500 |          | 1,181,690 |          | 1,928,190    |          | 201,518  |          | 435,426 | 35,373   |
| 1923              | 93,765   |          | 796,460 |          | 1,364,304 |          | 2,160,764    |          | 199,148  |          | 366,551 | 55,064   |
| 1924              | 85,514   |          | 600,458 |          | 998,069   |          | 1,598,527    |          | 160,180  |          | 349,540 | 29,362   |
| 1925              | 108,767  |          | 907,399 |          | 1,264,965 |          | 2,172,364    |          | 170,552  |          | 308,584 | 38,100   |
| 1926              | 96,965   |          | 770,219 |          | 1,050,217 |          | 1,820,436    |          | 181,295  |          | 422,360 | 25,916   |
| 1927              | 80,815   |          | 605,140 |          | 1,286,878 |          | 1,892,018    |          | 183,174  |          | 423,065 | 37,048   |
| 1928              | 79,402   |          | 758,235 |          | 1,271,278 |          | 2,029,513    |          | 153,441  |          | 367,174 | 35,986   |
| 1929              | 78,123   |          | 653,968 |          | 1,212,060 |          | 1,866,028    |          | 172,682  |          | 366,642 | 37,557   |
| 1930              | 57,858   |          | 555,097 |          | 1,032,983 |          | 1,588,030    |          | 137,280  |          | 250,644 | 46,575   |
| 1931              | 98,663   |          | 813,003 |          | 997,834   |          | 1,815,842    |          | 185,282  |          | 442,537 | 30,941   |
| 1932              | 85,576   |          | 869,985 |          | 1,365,773 |          | 2,235,758    |          | 156,326  |          | 419,287 | 29,924   |
| 1933              | 87,600   |          | 622,159 |          | 1,120,961 |          | 1,743,120    |          | 179,993  |          | 351,440 | 34,372   |
| 1934              | 90,097   |          | 496,498 |          | 416,595   |          | 913,093      |          | 168,125  |          | 204,701 | 12,011   |
| 1935              | 103,066  |          | 778,858 |          | 814,172   |          | 1,593,040    |          | 199,536  |          | 371,461 | 24,526   |
| Oct. 1, 1936      | 91,581   |          | 517,696 |          | 403,500   |          | 921,196      |          | 174,715  |          | 299,915 | 21,955   |

Feed Crops and Livestock - 14.

Oats: Production by Geographical Divisions, 1919 to Date

|              | East     |          | West     |           | Twelve North |           | South    |          | Western  |          |
|--------------|----------|----------|----------|-----------|--------------|-----------|----------|----------|----------|----------|
|              | North    | Central  | North    | Central   | Central      | States    | Atlantic | Central  | Central  | 1000 Bu. |
|              | 1000 Bu. | 1000 Bu. | 1000 Bu. | 1000 Bu.  | 1000 Bu.     | 1000 Bu.  | 1000 Bu. | 1000 Bu. | 1000 Bu. | 1000 Bu. |
| 1919         | 63,971   | 338,416  | 514,072  | 852,488   | 22,333       | 852,488   | 22,333   | 129,238  | 38,573   |          |
| 1920         | 89,692   | 471,502  | 695,424  | 1,166,926 | 24,494       | 1,166,926 | 24,494   | 105,439  | 57,740   |          |
| 1921         | 61,919   | 305,671  | 513,014  | 818,685   | 27,772       | 818,685   | 27,772   | 83,329   | 53,565   |          |
| 1922         | 72,332   | 324,198  | 601,853  | 926,051   | 28,658       | 926,051   | 28,658   | 71,956   | 48,908   |          |
| 1923         | 66,485   | 373,996  | 627,177  | 1,001,173 | 29,317       | 1,001,173 | 29,317   | 71,099   | 59,110   |          |
| 1924         | 75,246   | 451,916  | 737,109  | 1,189,025 | 21,500       | 1,189,025 | 21,500   | 83,557   | 46,492   |          |
| 1925         | 79,975   | 451,292  | 745,236  | 1,196,528 | 22,229       | 1,196,528 | 22,229   | 54,012   | 52,524   |          |
| 1926         | 71,229   | 401,390  | 505,676  | 907,066   | 26,520       | 907,066   | 26,520   | 101,245  | 46,851   |          |
| 1927         | 69,804   | 341,126  | 543,139  | 884,265   | 24,451       | 884,265   | 24,451   | 64,905   | 49,796   |          |
| 1928         | 62,403   | 484,096  | 641,600  | 1,125,696 | 20,656       | 1,125,696 | 20,656   | 56,167   | 47,992   |          |
| 1929         | 50,370   | 350,132  | 586,042  | 936,174   | 23,970       | 936,174   | 23,970   | 60,426   | 42,110   |          |
| 1930         | 74,581   | 409,789  | 663,309  | 1,073,098 | 23,407       | 1,073,098 | 23,407   | 63,168   | 40,444   |          |
| 1931         | 59,399   | 384,249  | 500,440  | 884,689   | 30,887       | 884,689   | 30,887   | 118,825  | 30,092   |          |
| 1932         | 59,734   | 399,701  | 646,267  | 1,045,968 | 25,487       | 1,045,968 | 25,487   | 76,038   | 43,728   |          |
| 1933         | 46,574   | 230,373  | 346,348  | 576,721   | 22,092       | 576,721   | 22,092   | 46,337   | 41,442   |          |
| 1934         | 56,810   | 184,645  | 178,483  | 363,128   | 22,791       | 363,128   | 22,791   | 67,726   | 31,851   |          |
| 1935         | 60,516   | 329,149  | 650,319  | 979,468   | 27,441       | 979,468   | 27,441   | 82,918   | 46,325   |          |
| Oct. 1, 1936 | 50,550   | 264,517  | 354,231  | 618,748   | 21,078       | 618,748   | 21,078   | 54,183   | 39,191   |          |



## Barley: Production by Geographical Divisions, 1919 to Date

|              | North<br>Atlantic<br>1000 Bu. | North<br>Central<br>1000 Bu. | South<br>Atlantic<br>1000 Bu. | South<br>Central<br>1000 Bu. | Western<br>1000 Bu. |
|--------------|-------------------------------|------------------------------|-------------------------------|------------------------------|---------------------|
| 1919         | 4,005                         | 85,934                       | 354                           | 4,338                        | 36,455              |
| 1920         | 4,863                         | 121,079                      | 319                           | 3,833                        | 40,948              |
| 1921         | 3,164                         | 86,066                       | 276                           | 3,863                        | 39,333              |
| 1922         | 3,346                         | 103,804                      | 370                           | 3,470                        | 41,918              |
| 1923         | 3,759                         | 106,160                      | 491                           | 4,812                        | 43,772              |
| 1924         | 4,583                         | 121,581                      | 766                           | 6,798                        | 31,590              |
| 1925         | 5,222                         | 134,489                      | 728                           | 2,805                        | 49,222              |
| 1926         | 6,199                         | 107,116                      | 769                           | 7,559                        | 44,387              |
| 1927         | 6,608                         | 178,009                      | 630                           | 4,104                        | 49,720              |
| 1928         | 6,191                         | 259,402                      | 805                           | 4,331                        | 57,622              |
| 1929         | 4,791                         | 211,184                      | 987                           | 5,208                        | 57,754              |
| 1930         | 6,628                         | 225,463                      | 1,357                         | 3,362                        | 63,395              |
| 1931         | 5,936                         | 146,694                      | 2,133                         | 8,034                        | 36,594              |
| 1932         | 6,034                         | 217,283                      | 2,184                         | 6,084                        | 66,728              |
| 1933         | 5,497                         | 96,776                       | 2,359                         | 2,801                        | 46,334              |
| 1934         | 5,474                         | 63,225                       | 2,351                         | 4,169                        | 41,461              |
| 1935         | 5,973                         | 209,824                      | 2,699                         | 3,872                        | 59,858              |
| Oct. 1, 1936 | 4,732                         | 83,334                       | 2,209                         | 3,271                        | 50,370              |

## Grain Sorghums, All: Production by Geographical Divisions, 1919 to Date

|              | North<br>Central<br>1000 Bu. | South<br>Central<br>1000 Bu. | Western<br>1000 Bu. |
|--------------|------------------------------|------------------------------|---------------------|
| 1919         | 15,560                       | 38,965                       | 17,805              |
| 1920         | 24,805                       | 96,937                       | 14,625              |
| 1921         | 17,586                       | 81,492                       | 13,195              |
| 1922         | 18,682                       | 48,296                       | 8,552               |
| 1923         | 26,138                       | 48,522                       | 13,806              |
| 1924         | 25,512                       | 63,558                       | 8,096               |
| 1925         | 21,660                       | 58,709                       | 10,021              |
| 1926         | 18,623                       | 80,419                       | 9,094               |
| 1927         | 30,785                       | 88,993                       | 8,350               |
| 1928         | 22,860                       | 87,357                       | 9,804               |
| 1929         | 15,543                       | 57,749                       | 8,922               |
| 1930         | 11,796                       | 42,028                       | 8,746               |
| 1931         | 19,542                       | 81,985                       | 12,122              |
| 1932         | 20,464                       | 80,619                       | 8,662               |
| 1933         | 18,349                       | 54,426                       | 9,910               |
| 1934         | 7,368                        | 28,418                       | 4,439               |
| 1935         | 14,704                       | 74,111                       | 9,008               |
| Oct. 1, 1936 | 8,480                        | 43,615                       | 8,741               |

## Soybeans (for Grain): Harvested Acreage and Production in Specified States, 1924 to Date

|               | Ohio  |      |       | Indiana |       |        | Illinois |       |       | Iowa  |      |       | Missouri |      |       | North Carolina |      |       |
|---------------|-------|------|-------|---------|-------|--------|----------|-------|-------|-------|------|-------|----------|------|-------|----------------|------|-------|
|               | Pro-  | duc- | tion: | Pro-    | duc-  | tion:  | Pro-     | duc-  | tion: | Pro-  | duc- | tion: | Pro-     | duc- | tion: | Pro-           | duc- | tion: |
|               | Acre- | age  | 1000: | Acre-   | age   | 1000:  | Acre-    | age   | 1000: | Acre- | age  | 1000: | Acre-    | age  | 1000: | Acre-          | age  | 1000: |
|               | A.    | Bu.  | A.    | A.      | Bu.   | A.     | A.       | Bu.   | A.    | A.    | Bu.  | A.    | A.       | Bu.  | A.    | A.             | Bu.  | A.    |
| 1924          | 15    | 195  | 66    | 653     | 115   | 11,380 | 10       | 120   | 69    | 656   | 80   | 1,160 |          |      |       |                |      |       |
| 1925          | 11    | 165  | 40    | 400     | 106   | 1,431  | 10       | 140   | 64    | 672   | 93   | 1,348 |          |      |       |                |      |       |
| 1926          | 19    | 247  | 42    | 529     | 140   | 1,750  | 20       | 300   | 83    | 830   | 106  | 1,378 |          |      |       |                |      |       |
| 1927          | 35    | 490  | 68    | 884     | 184   | 2,392  | 23       | 276   | 104   | 1,092 | 94   | 1,410 |          |      |       |                |      |       |
| 1928          | 37    | 555  | 69    | 1,000   | 186   | 3,069  | 21       | 357   | 103   | 1,288 | 120  | 1,380 |          |      |       |                |      |       |
| 1929          | 21    | 317  | 92    | 1,380   | 191   | 3,247  | 34       | 578   | 67    | 737   | 78   | 1,053 |          |      |       |                |      |       |
| 1930          | 21    | 294  | 147   | 2,058   | 336   | 5,712  | 52       | 858   | 78    | 741   | 97   | 1,261 |          |      |       |                |      |       |
| 1931          | 28    | 560  | 171   | 3,044   | 350   | 6,300  | 47       | 728   | 106   | 1,272 | 107  | 1,498 |          |      |       |                |      |       |
| 1932          | 25    | 388  | 134   | 2,144   | 315   | 6,500  | 46       | 828   | 89    | 1,112 | 80   | 960   |          |      |       |                |      |       |
| 1933          | 21    | 336  | 116   | 1,740   | 290   | 4,350  | 82       | 1,394 | 132   | 1,518 | 76   | 836   |          |      |       |                |      |       |
| 1934          | 24    | 408  | 160   | 2,560   | 542   | 10,258 | 157      | 1,884 | 117   | 878   | 84   | 1,008 |          |      |       |                |      |       |
| 1935          | 44    | 880  | 347   | 5,899   | 1,213 | 21,834 | 400      | 6,800 | 123   | 1,046 | 88   | 1,232 |          |      |       |                |      |       |
| Oct. 1, 1936  |       |      |       |         |       |        |          |       |       |       |      |       |          |      |       |                |      |       |
| (preliminary) | 55    | 798  | 238   | 3,094   | 1,100 | 17,600 | 200      | 2,200 | 69    | 448   | 119  | 1,606 |          |      |       |                |      |       |



## Hay and Pastures - 2

Exceptionally low yields per acre in important States and a small general downward trend in hay acreage during the last 10 years have resulted in smaller production in more recent years. Widespread drought in 1934 and 1936 and unfavorable growing conditions in some areas in other recent years not only reduced yields per acre over wide areas but resulted in the diversion of meadows to pastures. Consequently hay production since 1929 has been on a definitely lower level than formerly.

### Hay: Acreage and Production, United States, 1920 to date

|               | : 1920-29: | : 1920-35: | :        | :        | :        | :        | :        | :        | : Oct. Est. |
|---------------|------------|------------|----------|----------|----------|----------|----------|----------|-------------|
|               | : Avg. :   | : Avg. :   | : 1930 : | : 1931 : | : 1932 : | : 1933 : | : 1934 : | : 1935 : | : 1936 :    |
| Million Acres | :          | :          | :        | :        | :        | :        | :        | :        | :           |
| Harvested     | : 71.4 :   | : 69.7 :   | : 67.2 : | : 66.8 : | : 63.5 : | : 66.5 : | : 62.4 : | : 66.0 : | : 67.0 :    |
| Million Tons  | :          | :          | :        | :        | :        | :        | :        | :        | :           |
| Harvested     | : 87.4 :   | : 82.8 :   | : 74.4 : | : 73.9 : | : 82.5 : | : 73.3 : | : 53.4 : | : 87.5 : | : 70.2 :    |

East of the Missouri River the reduction in clover-timothy hay was partly offset by increases in alfalfa, soybeans, and other hay crops. In the five Corn Belt States of Ohio, Indiana, Illinois, Iowa, and Missouri, the acreage of soybean and cowpea hay increased about three-fold from 1934 to 1935. Soybean, cowpea, and peanut hay acreage in the South increased from 327,000 acres to 1,962,000 acres during that period. In the Great Plains Region, where alfalfa and prairie hays are important, yields per acre were much below normal during the recent drought years. The acreage of alfalfa has declined approximately 10 percent in this region during the last 10 years. Annual legumes are not grown extensively in that area.

### Demand

The supplies of surplus hay are more evenly distributed this year than in the drought year of 1934. For this reason it probably will not be necessary to ship hay into the drought areas as an emergency measure so extensively as in 1934. But there will be considerable demand for commercial hay throughout the drought area, especially if this area should experience a severe winter. The listings of surplus forage by the Federal Livestock Feed Agency during the month of largest listings in 1934 were approximately 62,000 carloads in the 15 principal drought States of that year. On September 15 of this year the listings from the same States, which include the drought area of 1936, total nearly 150,000 carloads. The total listings of surplus roughage supplies in the entire area surveyed in the first survey made this year totaled over 250,000 carloads as compared with 164,000 carloads, the largest number listed in 1934.

### Quality

On the average the quality of the hay produced in 1936 is above that produced in recent years and materially higher than in 1935. Because of the favorable weather for harvesting in 1936 most of the hay is of relatively high quality in the East and Central West. Certain areas in Montana, Wyoming, Utah, and Idaho report some alfalfa hay of poor quality because the crop was not cut at the proper stage of maturity. In some States of the Pacific Northwest a high percentage of low-quality hay is reported, which was caused by unfavorable weather during harvest.



### Hay Production for Market

In recent years there has been an increase in the transportation of hay by motor truck and this method of shipping hay has encouraged the production of hay for market in certain areas that are favorably located in relation to central markets. This is especially true of certain areas in Pennsylvania, New York, Ohio, and Michigan where the alfalfa acreage has been increased because of the better outlet now available for such hay as a cash crop. Other commercial hay-producing areas that are not favorably located with reference to central markets have suffered from this shift in production.

### Prices

The average farm price for all tame hay was \$10.87 on September 15, 1936, compared with \$7.43 on September 15, 1935, and \$13.03 on September 15, 1934. The peak in hay prices for the 1934 crop was reached about February 15, 1935, when the average for all hay was \$14.02, but the price declined to \$12.07 on June 15, 1935, partly as a result of lessened demand due to mild weather.

### Hay Production Trends

The drought of 1936 reduced hay production and caused injury to new seedlings. By next spring hay reserves will probably be about as low as in the spring of 1935. However, the present acreage of hay is sufficient under normal conditions to produce an ample crop of hay in 1937.

The damage to new seedlings by drought has now been partly offset by more favorable weather conditions. Local hay shortages may be largely offset in 1937 by increased plantings of small grains, legumes, and emergency crops for hay and forage.

The larger supplies of hay which will result from the increased attention to the production of hay and forage being fostered by the Soil Conservation program must be accompanied by a shift from grain to a larger proportion of nutritious forage in feeding rations if the larger forage supplies are to be efficiently utilized. It is significant that only hay of high quality, cut at the proper stage of maturity, and properly cured to prevent loss of feeding value can be used to supplant grain in the ration while maintaining gains in market weight or rate of production in the dairy herd.

### Pastures

The national agricultural program of crop adjustment and soil conservation has fostered an increased acreage of pastures, and has encouraged many farmers to improve their pastures through the use of lime and commercial fertilizer. The increase in the acreage and in the quantity of fertilizers used has not resulted in an increase in the production of pastures, as might well have been expected, because of the drought conditions which have prevailed over much of the Great Plains and in the Corn Belt in 2 of the last 3 years. The area severely affected this year extended over practically the whole area from the Rocky Mountains to the Appalachians and included much of the area covered by the 1934 drought. Where drought has been most severe, permanent pastures have been badly damaged and under average weather conditions several years must elapse before these grazing lands may be expected to return to their normal productive capacity.

The drought this year began somewhat later than that of 1934 but also continued later in the season before rains brought relief. Damage to pastures was about as great this year as in 1934. By midsummer, pastures in much of the important dairy-producing area were more severely affected than in any other recent year, but in the beef-cattle and sheep-producing areas as a whole they were not as poor as in 1934. After the 1934 drought there was a rather marked recovery in pasture conditions beginning about mid-August of that year which continued through most of 1935.

Farm pastures, monthly condition, United States, 1914 to date  
Percent of normal

|                            | : | :     | :     | :     | :     | :      | :       | :     | Seasonal |
|----------------------------|---|-------|-------|-------|-------|--------|---------|-------|----------|
|                            | : | Apr.: | May   | :June | :July | :Aug.  | :Sept.: | Oct.  | average  |
|                            | : | 1     | : 1   | : 1   | : 1   | : 1    | : 1     | : 1   | May-Oct. |
| 10-year average 1914-1923: | : | 84.9  | :90.3 | :88.4 | :82.4 | :81.5* | :81.1*  | :     | 84.8     |
| 10-year average 1924-1933: | : | 80.0  | :78.6 | :80.8 | :78.9 | :72.0  | :69.5   | :71.6 | 75.2     |
| 1934                       | : | 67.1  | :66.2 | :53.2 | :48.9 | :39.6  | :43.1   | :54.0 | 50.8     |
| 1935                       | : | 63.7  | :69.5 | :77.7 | :85.4 | :81.1  | :74.3   | :73.8 | 77.0     |
| 1936                       | : | 74.6  | :68.6 | :74.5 | :58.1 | :41.6  | :40.3   | :     |          |

\*9 year average 1915-1923

The recovery of pastures for the country as a whole began a month later this year than in 1934, the decline in conditions continuing until September 1. Since September 15, however, recovery has been pronounced and the condition was reported at 54 percent on October 1, 1936, which was the same as on October 1, 1934. At present pastures are generally poorest in the Great Plains area, and in Missouri and Arkansas. In the area from Kansas and Missouri southward, however, recent rains should cause sufficient growth of fall-sown small grains to supply a considerable acreage of supplementary grazing this fall and next spring.

During the next few years the existing permanent pastures are not likely to supply quite their usual quantity of feed. However, the experience of the last few years will probably lead to the better treatment of pastures, and many farmers may make supplementary seedings of permanent or annual pasture so that about the usual total supply of pasturage should be available unless weather conditions are again unfavorable.

West of the Rockies both pasture and range conditions in general have been favorable this year, but east of the Rockies range conditions were very poor after the drought became acute. The condition of ranges on September 1 was poorer than on that date in any previous year since 1923 with the exception of 1934. The recovery from the effects of the 1934 and 1936 droughts in the range areas most affected by drought this year will probably be slower than in the general farming areas where pastures can be more readily reseeded or supplemented by annual pastures. The recovery of the range will depend in part on the grazing policies followed both by private owners and on the public domain.

Ranges, monthly condition, United States, 1924 to date  
Percent of normal

|                      | : | Jan.: | Feb.: | Mar.: | Apr.: | May   | :June | :July | :Aug.: | Sept: | Oct.: | Nov.: | Dec.: | Yearly |
|----------------------|---|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|
|                      | : | 1     | : 1   | : 1   | : 1   | : 1   | : 1   | : 1   | : 1    | : 1   | : 1   | : 1   | : 1   | Avg.   |
| 10-Yr. Avg. 1924-33: | : | 82.9  | :82.3 | :83.6 | :84.8 | :85.7 | :87.6 | :86.9 | :83.6  | :82.4 | :82.5 | :81.6 | :81.5 | 83.8   |
| 1934                 | : | 74    | : 75  | : 77  | : 78  | : 80  | : 70  | : 66  | : 55   | : 54  | : 55  | : 55  | : 53  | 66.4   |
| 1935                 | : | 60    | : 59  | : 61  | : 64  | : 70  | : 83  | : 88  | : 85   | : 81  | : 83  | : 82  | : 81  | 74.8   |
| 1936                 | : | 79    | : 77  | : 77  | : 77  | : 79  | : 83  | : 76  | : 72   | : 70  | :     | :     | :     |        |

### Forage-Crop Seeds

Seed supplies of the grasses and clovers are expected to be a little more than one-third smaller than those of last year and about one-third smaller than the 5-year (1929-33) average, but about equal to the supplies of 1934. Of the important grasses and clovers commonly sown in the spring, the 1936 production of alsike clover seed alone exceeded the 1935 production. The grasses suffered more from the drought than did the legumes. The largest decreases in forage-crop seed production from last year occurred in the cases of timothy, Kentucky bluegrass, orchard grass, and Sudan-grass.

In general the carry-over of grass and clover seed is smaller than last year and also below normal. Notable exceptions are timothy, redtop, and Sudan grass, the carry-over of which is much larger than usual. The carry-over of alsike clover, red clover, and sweetclover seeds is the smallest in a number of years.

Prospective shortages of certain kinds of seeds will be offset in part by larger imports than in several years and by such substitutions as alsike clover or timothy seed for red clover and soybeans for other legumes. Seeds are higher in price and are smaller in size than usual as a result of the drought so there will be smaller rates of seeding than usual.

Current wholesale prices of grass and clover seeds average about 30 percent more than those of last year at a corresponding time and about 35 percent more than the 5-year average, but about the same as in 1934. The largest increases over the 5-year average occur with sweetclover, red clover, alfalfa, and redtop.

Hay and Pastures Data Sheet - 1

HAY: U.S. SEASONAL AVERAGE FARM PRICES OF ALL HAY, ALFALFA HAY,  
CLOVER HAY, AND PRAIRIE HAY - 1919 TO DATE. (Dols. per ton)

|                |   | CURRENT PRICE |   |         |   |        |   |         |
|----------------|---|---------------|---|---------|---|--------|---|---------|
| Season         | : |               |   |         |   |        |   |         |
| Beginning      | : | All           | : | Alfalfa | : | Clover | : | Prairie |
| July 15        | : | Loose         | : | Loose   | : | Loose  | : | Loose   |
| <u>Dollars</u> |   |               |   |         |   |        |   |         |
| 1919           |   | 21.00         |   | 22.75   |   | 23.73  |   | 16.73   |
| 1920           |   | 16.46         |   | 15.34   |   | 19.33  |   | 10.32   |
| 1921           |   | 11.63         |   | 10.79   |   | 14.19  |   | 7.63    |
| 1922           |   | 11.64         |   | 12.86   |   | 13.04  |   | 3.32    |
| 1923           |   | 13.03         |   | 13.46   |   | 15.06  |   | 3.91    |
| 1924           |   | 12.66         |   | 13.31   |   | 12.50  |   | 3.70    |
|                |   |               |   |         |   |        |   |         |
| 1925           |   | 12.77         |   | 13.05   |   | 14.43  |   | 9.34    |
| 1926           |   | 13.74         |   | 13.53   |   | 15.07  |   | 10.33   |
| 1927           |   | 10.29         |   | 11.94   |   | 12.20  |   | 7.72    |
| 1928           |   | 11.22         |   | 13.73   |   | 12.97  |   | 3.04    |
| 1929           |   | 10.87         |   | 13.73   |   | 11.93  |   | 3.14    |
|                |   |               |   |         |   |        |   |         |
| 1930           |   | 11.03         |   | 12.13   |   | 13.33  |   | 7.26    |
| 1931           |   | 8.63          |   | 10.05   |   | 9.65   |   | 6.75    |
| 1932           |   | 6.17          |   | 6.99    |   | 7.74   |   | 4.49    |
| 1933           |   | 3.06          |   | 3.42    |   | 9.53   |   | 5.63    |
| 1934           |   | 12.22         |   | 14.43   |   | 15.25  |   | 11.39   |
| 1935 1/        |   | 7.65          |   | 3.53    |   | 9.24   |   | 5.49    |

Based on estimates of Crop Reporting Board.

1/ 1935 figures, preliminary.



FARM PRICES OF LOOSE HAY, UNITED STATES  
Dollars per ton, 15th of each month, 1934, 1935, 1936

| Month     | ALL HAY |       | ALFALFA HAY |       | CLOVER HAY |       | PRAIRIE HAY |       |       |       |       |      |
|-----------|---------|-------|-------------|-------|------------|-------|-------------|-------|-------|-------|-------|------|
|           | 1934    | 1935  | 1936        | 1935  | 1936       | 1935  | 1936        | 1935  | 1936  |       |       |      |
| January   | 7.78    | 14.02 | 7.30        | 8.47  | 15.31      | 8.50  | 9.39        | 16.30 | 8.83  | 5.47  | 12.76 | 4.86 |
| February  | 8.07    | 14.02 | 7.57        | 8.58  | 15.19      | 8.78  | 9.69        | 16.34 | 9.07  | 5.53  | 12.83 | 5.10 |
| March     | 8.34    | 13.79 | 7.45        | 8.63  | 14.99      | 8.67  | 10.25       | 16.82 | 9.01  | 5.77  | 12.87 | 5.03 |
| April     | 8.59    | 13.67 | 7.35        | 8.84  | 14.94      | 8.35  | 10.71       | 15.16 | 8.76  | 6.11  | 13.33 | 4.73 |
| May       | 8.94    | 13.38 | 7.26        | 9.28  | 14.74      | 8.16  | 11.37       | 14.77 | 8.70  | 6.50  | 13.20 | 4.55 |
| June      | 9.75    | 12.07 | 7.31        | 10.25 | 12.31      | 7.82  | 11.73       | 13.59 | 8.89  | 7.42  | 10.93 | 4.75 |
| July      | 10.18   | 8.88  | 8.66        | 10.84 | 9.23       | 9.37  | 12.17       | 10.72 | 9.89  | 7.90  | 6.58  | 6.71 |
| August    | 12.50   | 7.90  | 10.77       | 13.51 | 8.44       | 12.04 | 14.50       | 9.48  | 12.71 | 11.03 | 5.61  | 8.62 |
| September | 13.03   | 7.43  | 10.87       | 14.69 | 8.25       | 12.15 | 15.56       | 8.90  | 12.84 | 11.61 | 5.91  | 8.34 |
| October   | 13.40   | 7.26  |             | 15.07 | 8.15       |       | 15.69       | 9.00  |       | 11.86 | 5.31  |      |
| November  | 13.58   | 7.25  |             | 15.23 | 8.27       |       | 15.73       | 8.86  |       | 12.09 | 5.73  |      |
| December  | 13.86   | 7.20  |             | 15.37 | 8.29       |       | 15.99       | 8.87  |       | 12.49 | 4.75  |      |



# Hay and Pastures Data Sheet - 4

## HAY, BY KINDS: ACREAGE HARVESTED, UNITED STATES, 1919 TO DATE

| Data for Chart No. 29417 B |            |            |            |            |            |            |            |            |            |            |            |            |            |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Crop                       | : Alfalfa  | : Clover   | : Sweet    | : Soybean, | : Clover & | : Grains   | : Misc.    | : All      | :          | :          | :          | :          | :          |
| Year                       | : Alfalfa  | : Clover   | : Sweet    | : Soybean, | : Clover & | : Grains   | : Misc.    | : All      | :          | :          | :          | :          | :          |
| : 1,000 A.                 | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. | : 1,000 A. |
| 1919                       | 8,647      | -          | -          | 2,332      | 2/33,340   | 5,183      | 6,518      | 56,020     | 17,124     | 73,144     |            |            |            |
| 1920                       | 9,015      | -          | -          | 2,390      | 2/34,302   | 4,409      | 6,653      | 56,769     | 16,264     | 73,033     |            |            |            |
| 1921                       | 9,165      | -          | -          | 2,626      | 2/34,444   | 4,360      | 6,853      | 57,448     | 15,622     | 73,070     |            |            |            |
| 1922                       | 9,275      | -          | -          | 2,833      | 2/36,530   | 3,642      | 7,000      | 59,280     | 16,152     | 75,432     |            |            |            |
| 1923                       | 9,764      | -          | -          | 3,021      | 2/34,299   | 3,250      | 7,383      | 57,717     | 15,828     | 73,545     |            |            |            |
| 1924                       | 10,352     | 720        | 327        | 3,421      | 34,038     | 3,161      | 7,054      | 59,073     | 15,166     | 74,239     |            |            |            |
| 1925                       | 10,388     | 728        | 253        | 2,744      | 31,677     | 3,109      | 6,166      | 55,065     | 14,661     | 69,726     |            |            |            |
| 1926                       | 10,721     | 713        | 310        | 3,007      | 29,970     | 3,863      | 6,319      | 54,903     | 13,334     | 68,237     |            |            |            |
| 1927                       | 11,277     | 821        | 338        | 3,804      | 31,563     | 3,054      | 6,132      | 66,989     | 14,527     | 71,516     |            |            |            |
| 1928                       | 11,123     | 879        | 325        | 3,794      | 28,519     | 2,242      | 6,065      | 53,547     | 13,172     | 66,719     |            |            |            |
| 1929                       | 11,529     | 954        | 349        | 3,435      | 29,935     | 3,254      | 5,779      | 55,235     | 13,571     | 68,806     |            |            |            |
| 1930                       | 11,684     | 853        | 431        | 3,491      | 27,114     | 3,971      | 5,908      | 53,452     | 13,789     | 67,241     |            |            |            |
| 1931                       | 11,782     | 810        | 564        | 4,595      | 25,084     | 5,975      | 6,165      | 54,975     | 11,862     | 66,837     |            |            |            |
| 1932                       | 12,650     | 834        | 851        | 5,200      | 23,667     | 4,829      | 6,460      | 54,491     | 14,048     | 68,539     |            |            |            |
| 1933                       | 12,745     | 720        | 1,115      | 4,406      | 23,480     | 5,442      | 6,564      | 54,472     | 12,053     | 66,525     |            |            |            |
| 1934                       | 11,691     | 719        | 1,701      | 5,913      | 20,146     | 6,718      | 6,921      | 53,809     | 8,623      | 62,432     |            |            |            |
| 3/1935                     | 13,781     | 636        | 1,968      | 5,636      | 20,230     | 4,651      | 6,770      | 53,672     | 12,300     | 65,972     |            |            |            |
| 3/1936                     | 14,333     | -          | -          | -          | 22,425     | -          | -          | 56,341     | 11,563     | 67,904     |            |            |            |

Estimates of Crop Reporting Board.  
 (2) Includes sweet clover and lespedeza.  
 (3) Preliminary.

# Hay and Pastures Data Sheet - 5

## CONDITION OF FARM PASTURES, 1914-1936 SEASONS By Months

Percent of normal\*

Data for Chart No. 31816 B

|      | Apr. | May  | June | July | August | Sept. | Oct. | Seasonal<br>Average<br>May-October |
|------|------|------|------|------|--------|-------|------|------------------------------------|
| 1914 |      | 88.9 | 90.0 | 83.0 | 76.2   |       |      |                                    |
| 1915 |      | 88.4 | 92.5 | 93.2 | 95.5   | 97.7  | 95.9 | 93.9                               |
| 1916 |      | 84.8 | 90.8 | 94.8 | 84.5   | 79.8  | 76.9 | 85.8                               |
| 1917 |      | 79.9 | 83.1 | 84.1 | 78.5   | 77.5  | 75.5 | 79.8                               |
| 1918 |      | 81.6 | 89.3 | 82.0 | 72.4   | 67.7  | 73.5 | 77.8                               |
| 1919 |      | 91.1 | 97.4 | 95.8 | 85.3   | 81.6  | 78.9 | 88.4                               |
| 1920 |      | 79.3 | 90.2 | 91.4 | 87.7   | 88.1  | 86.9 | 87.3                               |
| 1921 |      | 90.0 | 89.4 | 84.4 | 78.3   | 82.1  | 84.8 | 84.8                               |
| 1922 |      | 85.9 | 94.6 | 88.5 | 86.7   | 78.7  | 72.7 | 84.5                               |
| 1923 |      | 79.4 | 86.1 | 87.2 | 79.4   | 80.2  | 85.0 | 82.9                               |
| 1924 | 81.7 | 82.4 | 83.2 | 87.2 | 82.0   | 76.6  | 78.6 | 81.7                               |
| 1925 | 81.8 | 82.2 | 75.7 | 73.0 | 69.5   | 67.4  | 72.9 | 73.4                               |
| 1926 | 82.5 | 74.6 | 77.0 | 77.0 | 69.9   | 78.2  | 83.7 | 76.7                               |
| 1927 | 86.8 | 87.0 | 88.3 | 92.8 | 86.9   | 84.2  | 80.1 | 86.6                               |
| 1928 | 80.7 | 71.3 | 78.6 | 84.4 | 85.6   | 83.3  | 77.7 | 80.2                               |
| 1929 | 85.6 | 86.9 | 87.2 | 87.5 | 79.7   | 67.1  | 70.2 | 79.8                               |
| 1930 | 78.5 | 77.3 | 80.4 | 74.6 | 56.4   | 47.7  | 56.1 | 65.4                               |
| 1931 | 76.1 | 78.8 | 78.5 | 73.0 | 63.7   | 63.0  | 63.5 | 70.1                               |
| 1932 | 73.8 | 74.1 | 77.6 | 79.0 | 71.1   | 67.6  | 67.1 | 72.8                               |
| 1933 | 72.0 | 71.5 | 81.5 | 60.5 | 55.6   | 59.5  | 65.6 | 65.7                               |
| 1934 | 67.1 | 66.2 | 53.2 | 48.9 | 39.6   | 43.1  | 54.0 | 50.8                               |
| 1935 | 68.7 | 69.5 | 77.7 | 85.4 | 81.1   | 74.3  | 73.8 | 77.0                               |
| 1936 | 74.6 | 68.6 | 74.5 | 58.1 | 41.6   | 40.3  |      |                                    |

\*Reported to Crop Reporting Board by crop correspondents as of the first of each month.



Hay and Pastures Data Sheet - 6

CONDITION OF RANGE, 1923-1936 SEASONS  
By Months

Percent of normal\*

Data for Chart No. 31817 B

|      | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Yearly<br>Average |
|------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------------------|
| 1923 | 89   | 85   | 86   | 84   | 88  | 92   | 94   | 92   | 91    | 94   | 93   | 92   | 90.0              |
| 1924 | 91   | 88   | 89   | 91   | 91  | 84   | 81   | 79   | 75    | 74   | 75   | 77   | 82.9              |
| 1925 | 77   | 77   | 79   | 80   | 84  | 86   | 86   | 83   | 87    | 92   | 91   | 91   | 84.4              |
| 1926 | 88   | 87   | 90   | 91   | 94  | 95   | 92   | 87   | 84    | 83   | 80   | 82   | 87.8              |
| 1927 | 85   | 86   | 89   | 88   | 89  | 89   | 94   | 94   | 95    | 94   | 93   | 93   | 90.8              |
| 1928 | 90   | 89   | 88   | 91   | 85  | 90   | 91   | 90   | 87    | 85   | 82   | 82   | 87.5              |
| 1929 | 82   | 82   | 79   | 82   | 84  | 87   | 88   | 86   | 83    | 84   | 84   | 80   | 83.4              |
| 1930 | 80   | 79   | 83   | 85   | 89  | 92   | 88   | 82   | 81    | 82   | 84   | 83   | 84.0              |
| 1931 | 81   | 83   | 87   | 86   | 84  | 82   | 79   | 73   | 73    | 71   | 72   | 73   | 78.7              |
| 1932 | 75   | 73   | 75   | 76   | 81  | 89   | 92   | 88   | 84    | 84   | 82   | 81   | 81.7              |
| 1933 | 80   | 79   | 77   | 78   | 76  | 82   | 78   | 74   | 75    | 76   | 73   | 73   | 76.8              |
| 1934 | 74   | 75   | 77   | 78   | 80  | 70   | 66   | 55   | 54    | 55   | 55   | 58   | 66.4              |
| 1935 | 60   | 59   | 61   | 64   | 70  | 83   | 88   | 85   | 81    | 83   | 82   | 81   | 74.8              |
| 1936 | 79   | 77   | 77   | 77   | 79  | 83   | 76   | 72   | 70    |      |      |      |                   |

\*Reported to Crop Reporting Board by range livestock producers as of the first of each month.

# Hay and Pastures Data Sheet - 7

HAY, ALL: ACREAGE HARVESTED, YIELD PER ACRE, PRODUCTION  
SEASONAL AVERAGE FARM PRICE, AND FARM VALUE: U. S., 1919 TO DATE

Data for Chart No. 29410 B

| Crop Year:     | Harvested | Yield | Production | Seasonal                     | Farm        |
|----------------|-----------|-------|------------|------------------------------|-------------|
|                | 1,000 A.  | Tons  | 1,000 Tons | Average farm price, per ton: | Value       |
|                |           |       |            | Dollars                      | 1,000 Dols. |
| 1919           | 73,144    | 1.26  | 92,482     | 20.35                        | 1,881,595   |
| 1920           | 73,033    | 1.26  | 91,668     | 16.46                        | 1,508,441   |
| 1921           | 73,070    | 1.16  | 84,821     | 11.63                        | 986,414     |
| 1922           | 75,432    | 1.26  | 95,152     | 11.64                        | 1,107,545   |
| 1923           | 73,545    | 1.22  | 89,418     | 13.08                        | 1,169,522   |
| 1924           | 74,239    | 1.23  | 91,239     | 12.67                        | 1,156,190   |
| 1925           | 69,726    | 1.13  | 78,474     | 12.79                        | 1,003,526   |
| 1926           | 68,237    | 1.11  | 75,550     | 13.25                        | 1,001,073   |
| 1927           | 71,516    | 1.36  | 97,544     | 10.28                        | 1,002,943   |
| 1928           | 66,719    | 1.25  | 83,589     | 11.21                        | 937,351     |
| 1929           | 68,806    | 1.26  | 86,912     | 10.88                        | 945,878     |
| 1930           | 67,241    | 1.11  | 74,398     | 11.04                        | 821,611     |
| 1931           | 66,837    | 1.11  | 73,857     | 8.70                         | 642,215     |
| 1932           | 68,539    | 1.20  | 82,505     | 6.20                         | 511,485     |
| 1933           | 66,525    | 1.11  | 73,839     | 8.10                         | 598,034     |
| 1934           | 62,432    | .93   | 58,372     | 13.27                        | 774,468     |
| 1935 <u>1/</u> | 65,972    | 1.33  | 87,484     | 7.47                         | 653,876     |
| 1936 <u>1/</u> | 67,904    | 1.03  | 70,165     | -                            | -           |

Estimates of Crop Reporting Board

1/ Preliminary.

Hay and Pastures Data Sheet - 8

HAY AND HAY-CONSUMING ANIMAL UNITS

HAY, ALL: PRODUCTION, CARRY-OVER, SUPPLY AND DISAPPEARANCE AND HAY-CONSUMING ANIMAL UNITS ON FARMS JAN. 1. U.S. 1919-20 TO DATE

Data for Chart No. 31743 B

|                    |                  | : Carry-         |                  | : Indicated:     | Supply      | : disap-    | : Hay-consuming        |
|--------------------|------------------|------------------|------------------|------------------|-------------|-------------|------------------------|
| Season             |                  | : over           |                  | : farm           | : per       | : pearance  | : animal units         |
| May 1 to           |                  | : from           |                  | : disap-         | : animal    | : per       | : January 1 <u>1</u> / |
| April 30           | : Production:    | previous         | : Supply         | : pearance       | : unit      | : animal    | :                      |
|                    | : year           |                  |                  |                  |             | : unit      | :                      |
|                    | <u>1000 tons</u> | <u>1000 tons</u> | <u>1000 tons</u> | <u>1000 tons</u> | <u>Tons</u> | <u>Tons</u> | <u>1000</u>            |
| 1919-20            | 92,482           | 8,693            | 101,175          | 91,866           | 1.138       | 1.033       | 88,896                 |
| 1920-21            | 91,668           | 9,309            | 100,977          | 84,616           | 1.162       | .974        | 86,873                 |
| 1921-22            | 84,821           | 16,361           | 101,182          | 91,647           | 1.175       | 1.064       | 86,110                 |
| 1922-23            | 95,152           | 9,535            | 104,687          | 93,321           | 1.237       | 1.102       | 84,660                 |
| 1923-24            | 89,418           | 11,366           | 100,784          | 90,083           | 1.217       | 1.088       | 82,826                 |
| 1924-25            | 91,239           | 10,701           | 101,940          | 89,007           | 1.268       | 1.107       | 80,373                 |
| 1925-26            | 78,474           | 12,933           | 91,407           | 82,205           | 1.174       | 1.056       | 77,869                 |
| 1926-27            | 75,550           | 9,202            | 84,752           | 76,249           | 1.123       | 1.010       | 75,484                 |
| 1927-28            | 97,544           | 8,503            | 106,047          | 91,848           | 1.425       | 1.234       | 74,441                 |
| 1928-29            | 83,589           | 14,199           | 97,788           | 89,096           | 1.298       | 1.183       | 75,332                 |
| 1929-30            | 86,912           | 8,692            | 95,604           | 86,213           | 1.244       | 1.122       | 76,838                 |
| 1930-31            | 74,398           | 9,391            | 83,789           | 76,092           | 1.073       | .974        | 78,096                 |
| 1931-32            | 73,857           | 7,697            | 81,554           | 73,203           | 1.021       | .917        | 79,861                 |
| 1932-33            | 82,505           | 8,351            | 90,856           | 80,163           | 1.096       | .967        | 82,874                 |
| 1933-34            | 73,839           | 10,693           | 84,532           | 77,053           | .984        | .897        | 85,907                 |
| 1934-35            | 58,372           | 7,479            | 65,851           | 61,314           | .814        | .758        | 80,909                 |
| 1935-36 <u>2</u> / | 87,484           | 4,537            | 92,021           | 78,650           | 1.149       | .982        | 80,086                 |
| 1936-37 <u>3</u> / | 70,165           | 13,371           | 83,536           |                  |             |             |                        |

1/ Thousand head of (horses + mules + milk cows + 0.75 other cattle + 0.12 sheep)

2/ Preliminary.

3/ October 1 estimate.

Based on estimates of Crop Reporting Board.

# Hay and Pastures Data Sheet - 9

## HAY, ALFALFA: PRICE OF NO. 1 AT KANSAS CITY AND FARM PRICE

Hay, Alfalfa: Price of No. 1 at Kansas City

| Month | 1924    | 1925    | 1926    | 1927    | 1928    | 1929    | 1930    | 1931    | 1932    | 1933    | 1934    | 1935    | 1936    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|       | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
|       | per ton | per ton | per ton | per ton | per ton | per ton | per ton | per ton | per ton | per ton | per ton | per ton | per ton |
| Jan.  | 25.44   | 22.50   | 22.15   | 20.00   | 21.38   | 28.31   | 23.75   | 21.45   | 14.00   | 10.50   | 12.50   | 23.50   | 13.50   |
| Feb.  | 23.88   | 19.25   | 21.56   | 19.25   | 22.48   | 28.75   | 23.00   | 19.56   | 14.50   | 10.25   | 12.37   | 23.12   | 13.75   |
| Mar.  | 25.00   | 19.56   | 22.81   | 18.75   | 24.25   | 29.80   | 22.05   | 19.63   | 16.00   | 10.80   | 12.75   | 22.75   | 13.60   |
| Apr.  | 26.25   | 18.94   | 24.63   | 19.00   | 26.13   | 29.75   | 23.00   | 19.25   | 16.00   | 11.00   | 13.95   | 22.00   | 15.40   |
| May   | 26.60   | 19.20   | 23.50   | 19.00   | 26.06   | 25.63   | 21.75   | 17.25   | 13.56   | 11.19   | 13.50   | 20.12   | 12.50   |
| June  | 20.56   | 17.50   | 17.25   | 15.25   | 20.05   | 19.60   | 16.75   | 12.88   | 9.75    | 9.65    | 14.12   | 14.81   | 11.30   |
| July  | 18.94   | 18.19   | 17.70   | 14.50   | 20.06   | 19.00   | 17.50   | 13.90   | 9.75    | 9.88    | 17.60   | 11.20   | 16.25   |
| Aug.  | 19.80   | 19.45   | 18.75   | 15.38   | 20.50   | 20.40   | 21.40   | 13.20   | 9.75    | 11.45   | 22.50   | 13.00   | 18.40   |
| Sept. | 20.44   | 20.06   | 19.38   | 18.00   | 20.90   | 23.50   | 22.00   | 12.88   | 9.75    | 11.75   | 22.50   | 13.40   |         |
| Oct.  | 21.06   | 21.45   | 19.90   | 19.45   | 23.13   | 24.31   | 22.25   | 13.10   | 10.50   | 11.75   | 21.70   | 14.00   |         |
| Nov.  | 20.95   | 21.25   | 20.50   | 18.50   | 24.88   | 24.75   | 23.15   | 13.13   | 10.50   | 11.75   | 21.50   | 14.00   |         |
| Dec.  | 22.88   | 21.44   | 20.25   | 20.56   | 25.95   | 22.75   | 22.50   | 14.25   | 11.05   | 12.69   | 23.25   | 13.70   |         |

Farm Price of Alfalfa, Kansas and Nebraska

| Month | 1924  | 1925  | 1926  | 1927  | 1928  | 1929  | 1930  | 1931  | 1932 | 1933 | 1934  | 1935  | 1936  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|
| Jan.  | 12.75 | 13.05 | 14.10 | 15.75 | 9.80  | 12.50 | 12.25 | 10.60 | 8.10 | 5.20 | 6.75  | 19.60 | 7.25  |
| Feb.  | 12.35 | 12.75 | 14.75 | 15.50 | 9.05  | 13.10 | 12.40 | 9.45  | 8.20 | 5.10 | 6.80  | 19.55 | 7.40  |
| Mar.  | 12.00 | 12.25 | 13.30 | 15.00 | 9.55  | 13.85 | 11.70 | 9.00  | 9.00 | 4.95 | 7.10  | 18.95 | 7.05  |
| Apr.  | 11.75 | 11.40 | 13.40 | 14.00 | 9.85  | 13.50 | 11.45 | 8.95  | 8.75 | 4.95 | 6.95  | 19.50 | 6.95  |
| May   | 11.50 | 12.05 | 13.50 | 13.95 | 10.20 | 13.05 | 10.95 | 8.50  | 8.45 | 5.40 | 7.55  | 19.90 | 6.75  |
| June  | 10.90 | 11.10 | 13.65 | 12.50 | 10.35 | 12.10 | 9.95  | 7.50  | 6.60 | 5.10 | 9.35  | 13.40 | 5.95  |
| July  | 10.40 | 11.35 | 13.70 | 11.55 | 10.00 | 10.80 | 9.20  | 7.35  | 6.30 | 7.20 | 10.45 | 7.55  | 9.90  |
| Aug.  | 10.85 | 11.80 | 15.40 | 10.75 | 9.90  | 11.05 | 11.15 | 7.70  | 5.75 | 7.50 | 17.60 | 7.70  | 15.60 |
| Sept. | 10.75 | 12.55 | 15.60 | 10.20 | 10.25 | 11.55 | 11.60 | 7.70  | 5.75 | 7.30 | 18.10 | 7.40  |       |
| Oct.  | 11.00 | 12.90 | 14.98 | 10.00 | 10.75 | 12.05 | 11.65 | 7.70  | 5.45 | 7.20 | 18.50 | 7.05  |       |
| Nov.  | 11.90 | 13.50 | 15.40 | 10.25 | 11.50 | 12.15 | 11.40 | 8.25  | 5.55 | 7.00 | 18.70 | 7.30  |       |
| Dec.  | 12.40 | 13.80 | 15.60 | 10.00 | 11.90 | 12.25 | 10.90 | 8.10  | 5.45 | 7.00 | 19.60 | 7.25  |       |

Table to Accompany Chart No. 29411 B



# Hay and Pastures Data Sheet -

## PRAIRIE HAY: PRICE OF NO. 1 UPLAND PRAIRIE AND FARM PRICE OF PRAIRIE HAY

### Average Monthly Price of No. 1 Upland Prairie Hay at Kansas City 1/

| Month | 1924                                  | 1925    | 1926    | 1927    | 1928    | 1929    | 1930    | 1931    | 1932    | 1933    | 1934    | 1935    | 1936    |
|-------|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|       | Dollars                               | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Jan.  | 15.00                                 | 11.00   | 13.90   | 15.50   | 10.44   | 12.38   | 12.19   | 12.60   | 9.15    | 7.50    | 8.25    | 19.00   | 8.75    |
| Feb.  | 14.69                                 | 10.38   | 13.81   | 15.13   | 10.44   | 12.75   | 12.13   | 12.00   | 9.31    | 7.50    | 8.25    | 19.00   | 9.05    |
| Mar.  | 14.65                                 | 10.50   | 13.50   | 14.38   | 11.15   | 13.95   | 11.80   | 11.31   | 10.00   | 6.50    | 8.25    | 18.75   | 8.80    |
| Apr.  | 14.75                                 | 10.31   | 15.25   | 13.90   | 11.25   | 14.00   | 11.94   | 11.87   | 10.50   | 6.69    | 8.95    | 20.55   | 8.80    |
| May   | 13.95                                 | 10.65   | 17.80   | 13.88   | 11.25   | 13.72   | 11.40   | 11.00   | 9.69    | 7.38    | 11.31   | 21.25   | 9.00    |
| June  | 12.56                                 | 10.75   | 17.38   | 13.25   | 11.05   | 13.70   | 11.13   | 9.44    | 9.50    | 7.25    | 13.56   | 17.88   | 9.00    |
| July  | 11.75                                 | 11.63   | 13.80   | 10.85   | 10.81   | 11.44   | 10.31   | 9.13    | 8.50    | 7.81    | 14.45   | 10.15   | 12.20   |
| Aug.  | 11.46                                 | 11.30   | 13.38   | 9.94    | 9.50    | 9.95    | 11.55   | 8.80    | 7.06    | 8.25    | 17.75   | 8.75    | 12.90   |
| Sept. | 10.94                                 | 13.06   | 14.25   | 10.25   | 9.65    | 10.94   | 14.00   | 8.81    | 7.00    | 8.06    | 18.50   | 8.75    |         |
| Oct.  | 12.19                                 | 14.35   | 15.50   | 11.45   | 10.38   | 12.56   | 14.00   | 9.55    | 7.50    | 8.06    | 15.50   | 8.75    |         |
| Nov.  | 12.25                                 | 13.75   | 16.00   | 11.06   | 11.38   | 12.45   | 13.70   | 9.75    | 7.50    | 8.25    | 18.50   | 8.75    |         |
| Dec.  | 12.00                                 | 14.13   | 15.88   | 11.50   | 11.88   | 12.06   | 13.50   | 9.44    | 7.50    | 8.25    | 19.25   | 8.75    |         |
| 1/    | Average of one day each week of month |         |         |         |         |         |         |         |         |         |         |         |         |

### Average Farm Price of Prairie Hay, Kansas, Nebraska, and Oklahoma

| Month | 1924  | 1925  | 1926  | 1927  | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1934  | 1935  | 1936 |
|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Jan.  | 10.30 | 10.50 | 10.40 | 10.80 | 7.00 | 7.03 | 7.20 | 6.73 | 4.90 | 3.53 | 4.65  | 13.37 | 4.56 |
| Feb.  | 10.10 | 10.03 | 11.20 | 11.43 | 6.17 | 7.50 | 7.27 | 6.23 | 5.10 | 3.33 | 4.43  | 13.13 | 4.93 |
| Mar.  | 9.83  | 9.20  | 10.83 | 10.84 | 6.23 | 7.87 | 7.06 | 6.10 | 5.50 | 3.18 | 4.73  | 13.13 | 4.66 |
| Apr.  | 9.97  | 8.43  | 10.70 | 10.67 | 6.33 | 7.83 | 7.00 | 6.13 | 5.44 | 3.48 | 4.67  | 14.07 | 4.50 |
| May   | 10.43 | 9.20  | 11.07 | 10.50 | 6.33 | 7.77 | 6.93 | 5.80 | 5.27 | 3.55 | 5.07  | 13.70 | 4.70 |
| June  | 9.23  | 8.63  | 10.67 | 9.67  | 5.57 | 7.60 | 6.43 | 5.33 | 4.77 | 3.47 | 5.90  | 11.20 | 4.46 |
| July  | 8.67  | 8.70  | 10.14 | 8.20  | 7.10 | 7.10 | 6.03 | 5.10 | 4.07 | 4.45 | 6.57  | 5.37  | 6.26 |
| Aug.  | 8.10  | 8.53  | 11.17 | 7.80  | 6.83 | 6.90 | 6.53 | 5.03 | 3.77 | 4.68 | 12.00 | 5.23  | 9.50 |
| Sept. | 8.27  | 9.27  | 10.90 | 6.90  | 6.33 | 7.27 | 6.83 | 5.17 | 3.57 | 4.54 | 12.43 | 4.93  |      |
| Oct.  | 8.50  | 9.73  | 10.03 | 7.00  | 6.47 | 7.27 | 6.90 | 4.77 | 3.63 | 4.42 | 12.10 | 4.93  |      |
| Nov.  | 10.17 | 10.10 | 10.60 | 6.33  | 6.64 | 7.30 | 6.84 | 5.13 | 3.13 | 4.35 | 11.83 | 4.63  |      |
| Dec.  | 10.43 | 10.43 | 11.07 | 7.07  | 6.73 | 7.30 | 6.70 | 5.13 | 3.50 | 4.57 | 13.07 | 4.50  |      |



## THE OUTLOOK FOR MEAT ANIMALS AND MEATS FOR 1937

### Summary

As a result of the severe drought of 1936, total meat supplies will be smaller in the calendar year 1937 than in the preceding year and possibly as small as in 1935. The reduction will be most pronounced in pork and in the better grades of beef. As further improvement in consumer demand for meats in 1937 is in prospect, the general level of livestock and meat prices in 1937 is expected to be higher than in 1936 and higher than for several years.

Even under favorable conditions for feed production in 1937, 1938, and 1939, it hardly seems probable that total slaughter supplies will reach a level equal to the 1930-34 average before 1940. With such a feed-grain production in the next few years, and if livestock production is in the reduced volume as now appears probable, the position of livestock producers in general will be relatively more favorable than that of cash-grain farmers.

### Supplies Smaller Except for Sheep and Lambs

Total meat supplies in 1937 (calendar year) will be smaller than in 1936, and probably will be almost as small as in 1935 when supplies were the smallest in the last 15 years. The reduction will be greatest in pork and in the better grades of beef. It will be the result of the feed shortage caused by the 1936 drought, which seriously affected much of the livestock-producing region.

Total supplies of feed grains for 1936 are materially smaller than in 1935, and nearly as small as in 1934. On the other hand, the situation with respect to hay and roughage supplies is considerably better than in 1934. Such supplies will be larger than in 1934, and the number of hay-consuming animals will be smaller. Thus, the livestock situation during the next year is expected to be more adversely affected by the feed-grain shortage in 1936 than by the reduced supply of hay and roughage.

The feed situation this year will affect the trend of hog numbers more than the trend of any other species of livestock. The number of pigs produced in 1937 will be sharply curtailed, although the number of hogs on farms at the beginning of 1937 may not be greatly different from that of a year earlier. Cattle numbers also will be reduced, possibly by 3 or 4 percent. The number of stock sheep on farms on January 1, 1937 may be even larger than a year earlier, and the number of lambs on feed for market also may be larger. In terms of animal units which allow for differences in size and feed requirements, the total number of all livestock on farms on January 1, 1937, will be somewhat smaller than on January 1, 1936, or on January 1, 1935.

Slaughter of cattle and calves is expected to be materially smaller in numbers in 1937 than in 1936, and because of the prospective marked reduction in cattle feeding and the resulting decrease in average weight, the production of beef will be reduced relatively more than the number of cattle slaughtered. It seems probable that hog slaughter in 1937 will be much smaller than in 1936. The proportion of the 1936 spring pig crop marketed after January 1, 1937, will be relatively small. The fall pig crop of 1936, which will be marketed in 1937, will be considerably smaller than that of 1935, and if feed production in 1937 is average or better, the proportion of the 1937 pig spring crop marketed before December 31, 1937, will be smaller than average. The average live weight of hogs slaughtered in 1937, however, may be little different from that in 1936. Sheep and lamb slaughter in 1937 may not be very different from that of the preceding year.

### Small Hog Supply a Feature

One of the outstanding features in the livestock and meat situation in the next 2 years will be the decrease in total meat supplies caused by the reduced production of hogs. The importance of hog production in total domestic meat supplies is indicated by the fact that in the 10 years, 1923-32, the dressed weight of hogs slaughtered under Federal inspection represented about 58 percent of the total dressed weight of all federally inspected livestock slaughter. In 1935 when the total dressed weight was about 20 percent less than average, the dressed weight of hogs comprised only 43 percent of the total. A somewhat similar situation prevailed in 1936.

Total dressed weight of livestock slaughtered under federal inspection, average 1923-32, and 1933-36

| Calendar<br>year | Cattle            | Calves            | Hogs              | Sheep<br>and<br>lambs | Total             |
|------------------|-------------------|-------------------|-------------------|-----------------------|-------------------|
|                  | Million<br>pounds | Million<br>pounds | Million<br>pounds | Million<br>pounds     | Million<br>pounds |
| Average          |                   |                   |                   |                       |                   |
| 1923-32...       | 4,547             | 480               | 8,072             | 546                   | 13,645            |
| 1933.....        | 4,541             | 505               | 8,226             | 673                   | 13,945            |
| 1934.....        | 4,960             | 643               | 7,231             | 624                   | 13,458            |
| 1935.....        | 4,564             | 603               | 4,406             | 701                   | 10,274            |



Since the dressed weight of hogs represents a much larger proportion of the live weight than does that of cattle, calves, or sheep, it follows that a given percentage decrease in the proportion of hogs in the total live weight of livestock slaughter will result in a still greater decrease in the proportion which hogs constitute of the total dressed weight, and this disproportion is further increased in terms of retail or consumption weight.

It seems reasonable to assume that during the next 2 years the total live weight of hogs slaughtered will be at least 20 percent below the average of the years 1923-32. This decrease could be offset in terms of live weight by a corresponding increase in the slaughter of other species of livestock, but in terms of dressed weight a considerably larger increase in the slaughter of other livestock would be required, and in terms of retail weight a still greater increase would be needed. This situation can be clearly shown by a comparison of the average proportions which each kind of livestock slaughtered represents of the total on a live weight, dressed weight, and retail weight basis. Such a comparison shows the proportion represented by hogs increasing from 49 percent of the live weight to 57.8 percent of the dressed weight, and to 61.4 percent of the retail weight, while the proportion represented by cattle decreases from 41.2 percent to 34.3 percent, to 30.5 percent.

Although reasonably accurate estimates can hardly be made of the slaughter of cattle, calves, and sheep for the next 2 years, there appears to be little likelihood that such slaughter will be sufficiently large to offset the reduction in hog slaughter in terms of live weight. Consequently, in terms of dressed weight and retail weight, the total livestock slaughter in both 1937 and 1938 probably will be much below average.

#### Change in Situation

Even under favorable conditions for feed production in 1937, 1938, and 1939, it hardly seems probable that the resulting increase in livestock production will be reflected in a total yearly slaughter supply before 1940, equal to the average of 1930-34. During the next few years prior to 1940, the annual per-capita production of meat is expected to be much below that of any year since 1920, except for 1935. From the point of view of total meat supplies, livestock producers generally will not be faced with the problem of an over-supply or surplus during the next 3 years, the term surplus as here used referring to a supply large in relation to average.

Should Soil Conservation Programs now in operation cause a considerable shift of the acreage of feed grains to hay and pasture, this change doubtless would cause some shift from hog production to cattle production. Such a shift would tend to maintain the decrease in the proportion which hogs constitute of the total livestock slaughter which resulted from the droughts of 1934 and 1936. In appraising the effects of such programs upon total meat supplies, it is important to recognize that a change in the proportion of the different species of livestock slaughtered may result in a considerable change in the total meat production without causing any material change in the total live weight of livestock slaughtered, due to differences in dressing percentages of the several species of livestock. For example, the total live weight of livestock slaughtered would not be changed if the live weight of hogs were decreased by 20 percent while at the same time the live weight of cattle were increased by 25 percent, with no change in the live weight of calves and sheep. Although there would be no change occurring in the total live weight under this assumption, there would be a decrease in the dressed weight and in the retail weight of meat from livestock slaughter because of the change in the proportions of such slaughter represented by cattle and hogs.

If the Soil Conservation Programs are continued over a considerable period of years it seems probable that total feed supplies will be increased. This will be a result of increased yields per acre of feed grains on the reduced acreage in regions where acreage is reduced, increased production of hay and grass from the increased acreage of these and increased production of both feed grains and hay from acreage shifted from non-feed crops to feed crops. Under such conditions one of the permanent long-time effects of the programs might be to increase total meat supplies somewhat.

In the last 3 years cash-grain farmers, who have had grain to sell, have been in a more favorable situation than farmers who fed grain to livestock, since the livestock-grain price ratio in most of that period was generally unfavorable for livestock production. If feed-grain production during the next few years is fairly normal, and if livestock production is in the reduced volume that now seems probable, the situation of livestock producers and feeders will be much more favorable than that of cash-grain farmers.

#### Domestic Demand for Meats Continued to Increase

Consumer demand for meats improved further in 1936 following increases in both 1935 and 1934. The continued increases in industrial activity, employment, and payrolls this year were reflected in an improved demand for all classes of meats. As measured in terms of quantities taken and actual prices paid by consumers, the demand for meats in the first 8 months of 1936 was stronger than for several years and was at a level about equal to that prevailing in the corresponding period of 1931, although it was lower than the level prevailing in the 5-year period prior to 1931. Based on retail prices of meats at New York City and apparent disappearance of federally inspected meats, including lard, in the United States, consumer expenditures for meats from January to August 1936 were about 11 percent greater than in the corresponding period of 1935, and they were about 45 percent greater than the extremely low level reached in the first 8 months of 1933.

The outlook for meat animals and meats - 5.

The total per-capita consumption of federally inspected meats and lard in the first 8 months of 1936, amounting to about 65 pounds, was 11 percent greater than in the same months of 1935. Despite this increase in the quantity of meat taken by consumers, the index of retail meat prices, as reported by the United States Bureau of Labor Statistics, was about the same in the first 8 months of 1936 as in 1935. The per-capita consumption of federally inspected pork, including lard, was 9 percent larger than a year earlier, but the retail prices of hog products in New York averaged 4 percent higher. The per-capita consumption of federally inspected beef and veal in the first 8 months of 1936 was 16 percent larger than a year earlier, but despite this large increase retail prices of good grade beef at New York were only 7 percent lower. The per-capita consumption of federally inspected lamb and mutton was about 8 percent smaller than a year earlier but retail prices of lamb at New York were up about 10 percent.

During the first 8 months of 1936, industrial production and incomes of consumers were at a higher level than at any time since 1930. Further improvement in both industrial activity and consumer buying power are probable in 1937. Consequently, it is probable that consumer demand for meats in 1937 will be stronger than in 1936. This prospective increase in demand also will be an additional strengthening influence to livestock prices.





## THE HOG OUTLOOK FOR 1937

### Summary

The number of hogs for slaughter in the present marketing year, which began October 1, is expected to be from 10 to 15 percent larger than in the two preceding years, when the totals were the smallest in many years, but probably will be about 20 percent less than the average of the 5 years prior to 1934-35. The supply for market this year would have been further increased had not the 1936 drought greatly curtailed feed grain production and thereby compelled many hog raisers to change their 1936 fall farrowing plans. Average weights probably will be lighter than usual and about the same as in 1934-35, following the drought of 1934.

The seasonal distribution of slaughter during the present marketing year is likely to be considerably different from that of the previous year. Slaughter during the 3 months, October to December 1936, will represent a larger than usual proportion of both the marketing year total and the winter total (October to March) and the entire winter supply will be a larger than average proportion of the year's supply. Supplies in the last quarter, July to September 1937, are expected to be considerably smaller than in the corresponding period of 1936 but larger than in the same period of 1935.

Further improvement in consumer demand for meats in this country is in prospect but little change in the foreign outlet for American hog products seems probable. A relatively strong storage demand for hog products during the coming winter is to be expected in view of the small supplies of hogs likely to be available for slaughter next summer.

The yearly average of hog prices probably will be about the same during 1936-37 as during 1935-36, but seasonal changes in prices are expected to be somewhat different. The seasonal decline this fall probably will be about average and be followed by a considerably larger than average seasonal advance in the late winter and early spring. Prices during the summer of 1937 probably will average higher than in the summer of 1936 and the summer peak probably will be reached somewhat later than in recent years.

The expansion in hog production which started in the fall of 1935, following the sharp downward trend of the 2 preceding years, was checked this fall by the feed shortage caused by the 1936 drought. High prices of corn in relation to the prices of hogs during the remainder of 1936 and in early 1937 will cause hog producers to raise fewer pigs in 1937 than in 1936. If prospects for a corn crop are favorable next summer, a sharp increase in breeding for the fall pig crop of 1937 is to be expected and will be reflected in increased slaughter supplies of hogs by the spring of 1938. It is not probable, however, that slaughter supplies can reach a volume equal to the 5-year average of 1929-33 before 1940.

## Domestic Supplies

Slaughter supplies of hogs during the current marketing year (October 1, 1936 to September 30, 1937) will be considerably larger than for either of the 2 previous marketing years but will be much smaller than the average of the 5 years preceding 1934-35, and probably smaller than for any other year since 1913-14. Federally inspected slaughter in the 1935-36 year in number of head was but little different from the slaughter in 1934-35, but in total live and dressed weight it was larger because average weights were heavier.

## Hog Slaughter Under Federal Inspection by Seasons

| October<br>to<br>April | Thous.<br>head | Live weight            |                 | May to<br>September | Thous.<br>head | Live weight               |                 |
|------------------------|----------------|------------------------|-----------------|---------------------|----------------|---------------------------|-----------------|
|                        |                | Total,<br>million lbs. | Average<br>lbs. |                     |                | Total,<br>million<br>lbs. | Average<br>lbs. |
| 1929-30                | 29,346         | 6,663                  | 227             | 1930                | 16,196         | 3,867                     | 239             |
| 1930-31                | 28,678         | 6,600                  | 230             | 1931                | 14,881         | 3,600                     | 242             |
| 1931-32                | 30,371         | 6,796                  | 224             | 1932                | 16,284         | 3,828                     | 235             |
| 1932-33                | 27,762         | 6,317                  | 228             | 1933                | 19,341         | 4,601                     | 238             |
| 1933-34                | 27,363         | 6,112                  | 223             | 1934                | 16,548         | 3,760                     | 227             |
| 1934-35                | 21,846         | 4,659                  | 213             | 1935                | 8,833          | 2,083                     | 236             |
| 1935-36                | 18,355         | 4,187                  | 228             | 1936                | 12,668         | 3,013                     | 238             |

How many more hogs will be slaughtered in federally inspected plants during the current marketing year than in the previous year will depend to a considerable extent upon the size of the 1936 fall pig crop. The 1936 spring pig crop for the entire country was larger by 9,000,000 head, or 29 percent, than the very small crop of 1935. In the Corn Belt states the increase amounted to 7,600,000 head, or 32 percent. Despite this marked increase, the spring crop this year was 20 percent smaller than the average of the 1932 and 1933 crops.

Drought Causes Hog Producers  
To Change Their Plans

The table on the following page shows the pig crops by seasons and years for both the United States and the Corn Belt from 1930 to 1936, and the inspected slaughter of hogs in the respective marketing years in which most of the yearly crops were slaughtered. An increase of 14 percent in the number of sows to farrow in the fall season of 1936 was forecast in the Pig Crop Report released by the Bureau of Agricultural Economics in late June. About June 1, when the reports from farmers were made on which the forecast was based, and toward the end of June when the Bureau's report was issued, prospects were favorable for an average or better-than-average corn crop in the Corn Belt States and there was every reason to expect an increase in the fall pig crop this year. Hog prices were at a fairly high level and the hog-corn price ratio was rather favorable for hog production. But within a few weeks after the report was issued the situation was entirely changed. Corn crop prospects dwindled rapidly as the drought, which had started in the Northern Plains area in the late spring, spread in July and August to the east and south until it devastated the corn crop over most of the Corn Belt area west of the Mississippi River. The drought also greatly reduced the prospects for corn in the Eastern Corn Belt and in all of the other States east of the Rocky Mountains, except in certain relatively small areas.

Hogs - 3

Yearly Pig Crops and Hog Slaughter, 1930-36.

(000 omitted)

|   | <u>1930</u> | <u>1931</u> | <u>1932</u> | <u>1933</u>          | <u>1934</u> | <u>1935</u> | <u>1936</u>          |
|---|-------------|-------------|-------------|----------------------|-------------|-------------|----------------------|
| Pig Crop                                    |             |             |             |                      |             |             |                      |
| United States                               |             |             |             |                      |             |             |                      |
| Spring crop                                 | 43,332      | 53,984      | 51,031      | 53,460               | 39,698      | 32,380      | 41,884               |
| Fall crop                                   | 24,303      | 29,192      | 31,494      | 30,740               | 17,068      | 22,694      | 19,000 <sup>1/</sup> |
| Total crop                                  | 74,125      | 83,176      | 82,525      | 84,200               | 56,766      | 55,074      | 60,884               |
| Corn Belt States<br>(12 W.N. Cent.)         |             |             |             |                      |             |             |                      |
| Spring crop                                 | 40,426      | 44,231      | 39,707      | 41,337               | 30,408      | 23,413      | 31,041               |
| Fall crop                                   | 17,480      | 20,306      | 21,616      | 21,755               | 10,062      | 14,538      | 11,400 <sup>1/</sup> |
| Total crop                                  | 57,906      | 64,537      | 61,323      | 63,092               | 40,470      | 37,957      | 42,441               |
| Inspected slaughter<br>(Oct. 1 to Sept. 30) | 43,558      | 46,655      | 47,103      | 43,311 <sup>2/</sup> | 50,680      | 31,022      |                      |
| Slaughter as percent of                     |             |             |             |                      |             |             |                      |
| U.S. Crop                                   | 58.8        | 56.1        | 57.1        | 59.8                 | 54.0        | 56.3        |                      |
| Corn Belt crop                              | 75.2        | 72.3        | 76.8        | 73.0                 | 75.8        | 81.7        |                      |

<sup>1/</sup> Tentative estimate.

<sup>2/</sup> Excluding 6,411,000 pigs and sows slaughtered for A.A.A. in August and September 1933. These included in computing ratio of slaughter to pig crop.

As corn prospects declined prices of corn advanced and the hog-corn price ratio shifted from a favorable to a distinctly unfavorable level even though hog prices also made a substantial rise during the same period. The first move of hog producers to adjust their hog numbers to the changed situation was to market brood sows that had farrowed in the spring, including those intended for fall farrow, and all other hogs that could be quickly finished for slaughter. Thus market receipts and slaughter of packing sows in July, August, and early September increased greatly. The proportion of sows in the slaughter during these months was the largest in the 15 years of record.

Brood Sows Liquidated

The indications from the June pig reports as to the number of hogs over 6 months old on June 1 this year compared with last, pointed to merely a moderate increase in slaughter during the 4 months June to September, if the numbers of sows kept for fall farrow was as large or larger than a year earlier. The actual slaughter, however, was 3,427,000 head larger, an increase of 51 percent. This brought the total slaughter for the marketing year ended September 30 to a level slightly larger than that of the previous year, whereas the indications up to July 1 pointed to a total considerably smaller. This increase in slaughter was without doubt a result of the heavy marketing of sows originally intended for fall farrowing, supplemented by an earlier movement of 1936 spring pigs. It is not known how many of such sows were marketed, nor what effect this heavy liquidation will have on fall farrowings. It seems fairly certain, however, that the number of sows to



farrow this fall will be substantially smaller than the number that farrowed in 1935, although probably not as small as the number farrowing in the fall of 1934. The greatest decrease will be in the western Corn Belt and it hardly seems probable that the reductions there will be offset to any considerable extent by increases elsewhere. Increases, however, are likely to occur in some of the Southern and Far Western States. A decrease in fall farrowings of from 10 to 20 percent now seems probable, which would result in a reduction in the fall pig crop of from 2,000,000 to 4,000,000 head. Most of this decrease will be in the Corn Belt States.

With the spring pig crop 9,000,000 head larger than in the previous year and the fall crop indicated as smaller, the total pig crop of 1936 will be from 4,000,000 to 7,000,000 head larger than the crop of 1935.

## Hogs To Be Marketed Early and at Light Weights

The seasonal distribution of slaughter during the 1936-37 marketing year will be much different from that of 1935-36 but similar in general pattern to that of 1934-35 and of other years of short corn crops and unfavorable hog-corn price ratios. Slaughter during the first 3 months, October to December, will be a relatively large proportion of the total for the marketing year and of the total for the first-half of the year. In numbers it will be much larger than in 1935 and may not be greatly different from 1934.

In most years slaughter in the second quarter is about equal to that in the first quarter but this year, as in 1934-35, it will be much smaller than in the first quarter. Slaughter during the second half of the year will represent a smaller than usual proportion of the total yearly slaughter. In 1935-36 slaughter during the second half comprised a larger than usual proportion of the yearly total. In number of head the slaughter during the second half of 1936-37 will be smaller than a year earlier, with most of the decrease occurring during the period July to September.

The average weight of hogs slaughtered during both the first and second quarters of the 1936-37 year will be considerably lighter than in the corresponding periods of the preceding year, and below average. The largest difference will be during the first quarter. For the remainder of the year the decrease in weights will be less marked and for the year as a whole the average weight may not be much different from that of 1934-35 when it was 220 pounds.

The following table shows the percentage seasonal distribution of hogs slaughtered under Federal inspection for all the years from 1930-31 to 1935-36, and for selected marketing years when the distribution was similar to what is expected for 1936-37.

### Percentage Distribution of Yearly Slaughter by Quarters

[illegible]



Hog Products in Storage Increased  
But Pork Stocks Less Than Average

The hog-product storage situation during the 1935-36 storage year was quite different from that of 1934-35 or any other recent year. The quantity of pork in storage on November 1, 1935, the beginning of the storage season, was much the smallest in the 20 years of record and was 53 percent smaller than the large quantity in storage on November 1 a year earlier. Because of the very small hog slaughter during the winter months, the accumulation of storage supplies was small and on March 1, 1936 stocks were 40 percent less than the average for that date. Stocks changed relatively little during the period from March through July, but were reduced somewhat in August and September. On October 1 stocks of pork were about 25 percent less than average but were 30 percent larger than the unusually small stocks on hand a year earlier.

Stocks of lard in storage on November 1, 1935 were about 60 percent smaller than the large stocks of a year earlier, but accumulations during the season were relatively greater than those of pork. On October 1, 1936 the quantity of lard in storage was more than twice as large as that of a year earlier and was equal to the average for that date.

Pork and Lard: Cold Storage Holdings  
5-year Average 1931-35, and 1934-35

|      | October 1<br>average<br><u>1931-35</u><br>1000<br>pounds | October 1<br><u>1934</u><br>1000<br>pounds | October 1<br><u>1935</u><br>1000<br>pounds | October 1<br><u>1936</u><br>1000<br>pounds |
|------|--|--|--|--|
| Pork | 481,080  | 524,220                                    | 277,605                                    | 341,651                                    |
| Lard | 101,083  | 128,054                                    | 45,350                                     | 101,634                                    |

At the beginning of the new storage season, November 1, 1936, stocks of pork are expected to be smaller than average, but considerably larger than a year earlier. The increase will be chiefly a reflection of the relatively large slaughter of hogs in September and October. Since hog slaughter during the winter months of 1936-37 will be considerably larger than the winter before, storage stocks of pork by March 1, 1937 are expected to be materially larger than the small stocks on hand on March 1, 1936.

Although stocks of lard usually decrease from August to December, the decrease during that period this year will be relatively small. Consequently the carry-over of lard into the new storage season will be large, especially in relation to slaughter supplies of hogs. The very short corn crop in 1936 probably will cause the supply of hogs this winter to be below average in quality and weight and yielding less than the usual percentage of lard. The percentage yield of pork, however, will be larger than average.

## Foreign Competition and Demand

Exports of hog products in 1935 and 1936 were at the lowest levels in many years. In the 5 years 1925-29, about 7 percent of the pork and 47 percent of the lard produced from hogs slaughtered under Federal inspection were exported. (See following table) Since about 1925, however, the trend of exports has been downward. The decrease in the years from 1925 to 1934 was the result of an expansion of hog production in Europe and restrictions to imports imposed by several importing countries. The decline in United States exports in 1935 and 1936 was due primarily to the greatly reduced production of hogs in this country.

With larger slaughter supplies of hogs in the United States in prospect for the first half of the 1936-37 marketing year, it is probable that exports of hog products will increase somewhat in this period. In the last half of 1936-37, however, the probable smaller domestic hog slaughter is likely to result in an export movement no greater than that in the last half of 1935-36.

During the last 12 months some foreign countries have to some extent relaxed their import restrictions for hog products, especially lard. The principal factor tending to prevent any large increase in the exports of hog products from the United States in 1936-37 will be the relatively high prices of hog products in this country resulting from the continued shortage of domestic hog supplies. Foreign exchange difficulties in several European countries will tend also to prevent any large imports of United States hog products, especially lard.

In Great Britain, the leading foreign market for United States exports of pork, there has been no material change in the system of import quotas for cured pork which has been in effect in recent years. The recent extension of the Anglo-Danish trade agreement of 1933 continues the present arrangement for British quotas on bacon and hams for an indefinite period, pending a decision in Great Britain on a permanent policy with respect to domestic and foreign supplies of pork. Plans now being formulated in Great Britain for 1937 contemplate import duties on pork and a subsidy for the British hog industry. The status of quotas under the proposed program is uncertain, but continuation of quantitative control of imports appears probable. Total imports permitted, however, may be increased somewhat. The United States share of the total British import quota continues for the present at 8.1 percent.

Great Britain continues to be the most important export outlet for United States lard. In the last year, when exports of lard from the United States were greatly reduced, several European and South American countries have been supplying increasing quantities of lard to the British market, and the proportion of the total British imports of this commodity represented by importations from the United States has declined considerably. In view of the probable short supplies of hogs in the United States, this situation is likely to continue in 1937. Total British imports of lard in 1936 were less than those of 1935, but imports of vegetable and marine oils increased.

## Hogs - 7

Exports of pork to specified countries from the United States,  
5-year averages 1925-29 and 1930-34, years 1935 and 1936

| Calendar<br>year | <u>United<br/>Kingdom</u> | <u>Cuba</u>     | <u>Canada</u>   | <u>Germany</u>  | <u>All<br/>other<br/>countries</u> | <u>Total<br/>all<br/>countries</u> | Exports<br>as<br>percent<br>of<br>pro-<br>duction <u>1/</u> |
|------------------|---------------------------|-----------------|-----------------|-----------------|------------------------------------|------------------------------------|---|
|                  | 1,000<br>pounds           | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds                    | 1,000<br>pounds                    |   |
| Average -        |                           |                 |                 |                 |                                    |                                    |   |
| 1925-29          | 232,381                   | 38,404          | 20,491          | 11,118          | 67,012                             | 369,906                            | 6.5   |
| 1930-34          | 110,285                   | 15,215          | 8,811           | 2,293           | 32,613                             | 169,217                            | 3.0   |
| 1935             | 65,772                    | 8,190           | 1,085           | 37              | 13,596                             | 88,680                             | 2.5   |
| 1936 <u>2/</u>   | 61,000                    | 5,000           | 4,500           | 30              | 12,000                             | 82,530                             |   |

Compiled from reports of the United States Department of Commerce.

Total includes actual weight of pork carcasses, fresh or frozen; pork loins and other, fresh or frozen; hams and shoulders, cured; bacon; Cumberland and Wiltshire sides; other pickled or salted pork and canned pork.

1/ Production from federally inspected slaughter.

2/ Preliminary estimates.

Exports of lard (including neutral) to specified countries from  
the United States, 5-year averages 1925-29 and 1930-34, years 1935 and 1936

| Calendar<br>year | <u>Cuba</u>     | <u>Germany</u>  | <u>Nether-<br/>lands</u> | <u>United<br/>Kingdom</u> | <u>All<br/>other<br/>countries</u> | <u>Total<br/>all<br/>countries</u> | Exports as<br>percent of<br>production <u>1/</u> |
|------------------|-----------------|-----------------|--------------------------|---------------------------|------------------------------------|------------------------------------|--|
|                  | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds          | 1,000<br>pounds           | 1,000<br>pounds                    | 1,000<br>pounds                    |  |
| Average,         |                 |                 |                          |                           |                                    |                                    |  |
| 1925-29          | 80,561          | 199,420         | 46,546                   | 231,473                   | 193,560                            | 751,560                            | 46.8   |
| 1930-34          | 33,915          | 112,063         | 31,776                   | 261,541                   | 121,825                            | 561,120                            | 36.6   |
| 1935             | 24,295          | 1,544           | 222                      | 64,679                    | 6,619                              | 97,359                             | 14.7   |
| 1936 <u>2/</u>   | 29,600          | 8,200           | 200                      | 68,300                    | 8,700                              | 115,000                            |  |

Compiled from reports of the United States Department of Commerce.

1/ Production from federally inspected slaughter.

2/ Preliminary estimates.

Until the present year, the British import quota system for cured pork apparently prevented any tendency towards increased hog numbers in continental European countries that supply the British market. In Denmark, however, hog numbers in mid-summer of 1936 were somewhat larger than the small number of a year earlier, but were much smaller than those of other recent years. Latest hog census data show total hog numbers in the more important producing countries of Europe to be about 5 percent larger than a year earlier.

Hog numbers in Germany increased materially during 1936 but that country still finds it necessary to import large quantities of lard, since total fat supplies in that country are still below normal despite a material increase in importations of vegetable oils. In Hungary, now an important source of German lard imports, hog numbers were considerably smaller in the summer of 1936 than a year earlier.

Germany formerly took about one-third of the lard exported from the United States, but during last year German imports of lard have come principally from European sources and have been obtained by barter or exchange agreements. Exports of lard from the United States to Germany during the last 12 months have been very limited because of short supplies in this country and foreign exchange difficulties in Germany.

Under normal conditions of supplies and prices for hog products in the United States, the concessions secured from foreign countries for these products in the reciprocal trade agreements probably would have resulted in some increase in exports to these countries in 1935 and 1936. However, the greatly reduced slaughter supplies of hogs and the high prices for pork and lard in this country in the last 2 years have more than offset the effect of the concessions on exports. But these concessions will be effective as long as the trade agreements are in force and they will tend to encourage exports of hog products, especially lard, to these countries when domestic hog production is increased.

In the first 8 months of 1936 there was some increase in imports of pork, mostly bacon, hams, and shoulders, into the United States. This increase was due largely to the removal of the compensating tax on imported hog products, which was equivalent to the hog processing tax, and to the shortage of domestic supplies of hog products. Although imports of pork were much larger than usual, they were equivalent to only about 0.4 percent of the total domestic production of hog products during the period of importation and were much smaller than the restricted exports of pork during that period.

#### Prices

The movement of hog prices was sharply upward from the middle of 1934 until September 1935, with the level advancing from about \$3.50 to \$11 per 100 pounds in this period. Prices declined in October and November 1935 almost to the \$9 level. From then until late summer 1936 the movement, although interrupted by occasional recessions, was gradually upward, with prices reaching the \$10 level.



# Hogs - 9

The marked rise in hog prices in 1934-35 was caused primarily by the sharp decrease in the slaughter supplies of hogs, although the improvement in consumer demand for hog products contributed to the advance. The relatively high prices in 1935-36 was due both to the continued shortage in hog supplies, the further improvement in consumer demand, and the removal of the processing tax.

Both the number and total live weight of hogs slaughtered under Federal inspection in the 1935-36 marketing year were slightly greater than in the previous year, but were much smaller than average. The total expenditures by packers for hogs were also greater than in 1934-35. In the following table comparative data are presented showing the number and total live weight of hogs slaughtered under Federal inspection, the average price paid, and total cost to packers for such slaughter in recent marketing years.

| Marketing year<br>(Oct.-Sept.) | <u>Fed. inspected slaughter</u> |                    | <u>Average</u>   |           | <u>Total cost</u>      |           |
|--------------------------------|---------------------------------|--------------------|------------------|-----------|------------------------|-----------|
|                                | <u>Number</u>                   | <u>Live weight</u> | <u>price per</u> |           | <u>to packers</u>      |           |
|                                | <u>Million</u>                  | <u>Million</u>     | <u>100 lbs.</u>  |           | <u>Million dollars</u> |           |
|                                | <u>head</u>                     | <u>pounds</u>      | <u>1/</u>        | <u>2/</u> | <u>1/</u>              | <u>2/</u> |
| Average 1928-29                |                                 |                    |                  |           |                        |           |
| to 1932-33                     | 46.4                            | 10,723             | 6.92             |           | 742                    |           |
| 1933-34                        | 43.9                            | 9,872              | 4.07             | 5.65      | 401                    | 556       |
| 1934-35                        | 30.7                            | 6,742              | 7.75             | 10.00     | 523                    | 675       |
| 1935-36                        | 31.0                            | 7,199              | 9.79             | 10.35     | 705                    | 745       |

1/ Not including processing tax payments, November 1935-January 1936.

2/ Including processing tax at rate in effect.

The yearly average of hog prices in 1936-37 probably will not be greatly different from that of 1935-36. Although the total live weight of inspected hog slaughter in the marketing year beginning October 1 is expected to be larger than that of the previous year, the effect of the increased supplies on hog prices will be largely offset by the further improvement in consumer demand now in prospect. A strong storage demand for hog products in the last 3 months of 1936, reduced supplies of beef cattle, and a strong demand for brood sows in the spring and summer of 1937 will also be strengthening factors in the hog price situation in 1936-37.

The seasonal changes in hog prices in 1936-37 are likely to be somewhat different from those of 1935-36. The proportion of the total slaughter supply for the year represented by the October-to-December slaughter is expected to be relatively large, and the total slaughter will be much greater in this period than it was a year earlier. These increased supplies will offset in part the increase in demand in prospect, hence the seasonal decline in hog prices during this period probably will be about average.

Hog slaughter is expected to be reduced materially after the beginning of 1937, as it was in early 1935, and it is anticipated that hog prices will advance rather sharply from January through March. Marketings of butcher hogs in the late summer of 1937 are likely to be relatively small in view of the reduced fall pig crop in 1936. If corn crop prospects in 1937 are favorable,

it is also probable that a larger-than-usual proportion of sows will be held for breeding and that the number marketed in the summer of 1937 will be small. A further advance in hog prices at that time is probable, with prices reaching the highest level for the present marketing year in the late summer or early fall.

#### Production Outlook Affected by Drought

After reaching the lowest level in many years in the spring of 1935, hog production began to expand in the fall of that year. This upward trend was continued in the spring of 1936. If corn production in 1936 had been average, or just a little below average, a further expansion in the fall of 1936 and in the spring of 1937 would undoubtedly have taken place. Then if an average corn crop were harvested in 1937 the upward trend in hog production would not have been checked before 1938. But with corn supplies nearly as small in 1936 as in 1934, a considerable decrease in the 1936 fall pig crop is now indicated instead of the increase which earlier in the year had been expected.

Present indications are that the number of hogs to be fed out of the 1936 corn supply will be larger than the number fed out of the slightly smaller supply of 1934. Inspected slaughter during the 1936-37 year probably will be 3 to 5 million head larger than in 1934-35. With relatively large marketings of hogs from October to December, 1936, hog prices will probably decline in relation to corn prices and the hog-corn price ratio is expected to become progressively more unfavorable until the end of the year. This unfavorable ratio, together with the very short supplies and high prices of all feed grains, is expected to cause a rather sharp reduction in the number of sows to farrow in the spring of 1937.

The low hog-corn price ratio probably will not continue through 1937, for after the heavy winter run of hogs is over supplies during the remainder of the year are expected to be reduced sufficiently to result in a rather sharp advance in hog prices. If prospects for a corn crop are favorable in 1937 corn prices will weaken in the spring and summer and by the time for breeding for the fall pig crop the hog-corn price ratio may be quite favorable again. Under these conditions a sharp increase in fall farrowings in 1937, somewhat similar to that in the fall of 1935, would occur. A further increase in farrowings in 1938 could also be expected, barring the occurrence of another severe drought, but it will be 1940 before slaughter supplies could reach a volume comparable with the average of the 5 years from 1929 to 1933.

As a result of the small hog production in this country, and restrictions on the imports of American hog products in a number of countries, the United States export trade in pork and lard has declined to very low levels. With production small for several more years, and prices of hog products in this country relatively high in comparison with prices in other exporting countries, there seems little chance of regaining much of the former volume of exports until production becomes more nearly normal. When that occurs it will be necessary to expand exports of United States pork and lard in world trade in hog products that will have become adjusted to a condition of small American supplies.

There have been marked difference among the several regions in the trend of hog numbers in recent years as shown in the following table. The decrease in the Corn Belt and in the Western States was caused very largely by the drought of

1934, with the hog reduction program of the Agricultural Adjustment Administration a contributing factor. The much greater decrease in the West North Central States than in the East North Central States since 1931 was the result of the rather low average yields of corn following a series of unfavorable years for the corn crop in the former region. The increase in the Southern States probably was due in part to the effects of the depression in encouraging a more self-supporting type of agriculture. The Agricultural Adjustment Program which resulted in a marked shift in acreage from cotton and tobacco to feed grains, peanuts, and hay also may have been a contributing factor.

Combined spring and fall pig crops by regions

(000 omitted)

| Region      | <u>1930</u> | <u>1931</u> | <u>1932</u> | <u>1933</u> | <u>1934</u> | <u>1935</u> | 1935 as<br>percent of<br>1930 |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|
| E.N.Cent.   | 17,881      | 13,886      | 21,836      | 23,022      | 15,445      | 15,442      | 86.3                          |
| W.N.Cent.   | 40,025      | 44,651      | 39,487      | 40,670      | 25,025      | 22,315      | 56.3                          |
| All.N.Cent. | 57,906      | 64,537      | 61,323      | 63,632      | 40,470      | 37,957      | 65.6                          |
| North Atl.  | 1,360       | 1,367       | 1,402       | 1,366       | 1,158       | 1,273       | 93.5                          |
| South Atl.  | 4,577       | 4,837       | 5,368       | 5,256       | 4,570       | 4,943       | 108.1                         |
| E.S.Cent.   | 3,536       | 3,885       | 4,887       | 5,066       | 3,970       | 4,196       | 119.3                         |
| W.S.Cent.   | 3,734       | 4,972       | 6,333       | 5,327       | 4,540       | 4,697       | 123.0                         |
| Western     | 2,362       | 3,578       | 3,212       | 2,893       | 2,058       | 2,008       | 62.6                          |
| U.S.        | 74,135      | 83,176      | 82,525      | 74,200      | 56,765      | 55,074      | 74.2                          |

When corn production in the Corn Belt becomes more normal, it is to be expected that hog production will increase, with the largest increase occurring in the West North Central States. The drought experiences of the last few years, however, may cause western Corn Belt farmers to be more cautious in increasing hog production until surplus corn supplies have been accumulated and there is more certainty that severe droughts are not likely to occur frequently. The increased hog production in the South probably will continue and may be further extended so long as the reduction in the acreage of the principal cash crops is maintained and if hog prices continue near present high levels.

-----





## THE BEEF CATTLE OUTLOOK FOR 1937

### Summary

Cattle numbers at the beginning of 1937 are expected to be somewhat smaller than those of a year earlier and considerably smaller than the peak number of 3 years earlier, but will be larger than the January 1 average of the last 15 years. The decrease in numbers since early 1934 has been largely in the areas most severely affected by the droughts of 1934 and 1936.

Although cattle numbers at the beginning of 1937 are expected to be smaller than a year earlier, because of liquidation resulting from the 1936 drought, they will be large enough to furnish an inspected slaughter of cattle and calves larger than the 10-year average, 1924-1933, with no reduction in numbers. But the general trend in numbers is likely to be upward during the next few years. Should range and pasture conditions in 1937 be fairly favorable in the areas most severely affected by the 1936 drought, there will be a strong tendency on the part of cattle raisers in those areas to restock and increase their herds. Little if any reduction in numbers is probable in areas where cattle numbers have decreased only slightly during the last 3 years. Because of the reduced hog supplies in prospect for the next 2 years, the cattle industry will be in a rather favorable position even though slaughter supplies should be large. But if hog production is increased to anything like its normal level after the next 2 years and if in the meantime cattle numbers also increase, the situation of cattle producers will then be less favorable than it is expected to be during 1937 and 1938.

Total slaughter of both cattle and calves is expected to be smaller in 1937 than in 1935 or 1936 but will be larger than the average of the 5 years preceding 1934. Because of reduced supplies and high prices of feed and the unfavorable returns from cattle feeding operations in 1936, the number of grain-fed cattle in the slaughter supply is expected to be considerably less than that of a year earlier. The decrease will be most marked in supplies of the better grades. Because of the relatively small decline in the prices of feeder cattle from the levels prevailing in 1935 and the much higher cost of feed supplies, the total cost of producing finished cattle for market in the 1936-37 season will be higher than it was in the previous season.

Further improvement in consumer demand for beef and veal which has been increasing since 1933 is expected as a result of the increasing buying power of consumers and the reduced supplies of pork.

In view of the smaller supplies of grain-fed cattle in late 1936 and early 1937 and the further improvement in consumer demand in prospect, prices of such cattle are expected to rise to higher levels. The advance, however, probably will not be so great as that which occurred in late 1934 and early 1935, following the drought of 1934. Prices of the lower grades of slaughter cattle during the first half of 1937 probably will advance at least as much as usual for the period. A rather broad demand for replacement stock of all kinds is in prospect next spring if crop and pasture conditions are fairly normal and this will result in relatively high prices for cows and heifers at that time. Conditions in general indicate that prices for cattle of all kinds in 1937 will average higher than in 1936 and will be fairly well maintained for 2 or 3 years, or until hog production is increased to near the levels of 1929-33.

## Beef Cattle - 2

### Cattle Supplies

After reaching an all-time peak as of the beginning of the year on January 1, 1934, the number of cattle on farms was reduced sharply during 1934 and slightly during 1935. The number on January 1, 1936, however, was 10,891,000 head larger than the number on January 1, 1928, the low point of the present cattle-number cycle. The following table shows the estimated number of cattle on farms for selected significant years from 1920 to 1936.

Estimated cattle numbers by classes, 1920-1936  
(000 omitted)

|       | Milk Stock  |           |         | Other Cattle |           |         | All     |        |        |
|-------|-------------|-----------|---------|--------------|-----------|---------|---------|--------|--------|
| Year: | Cows and    | Yearling: | Heifer: | Cows and     | Yearling: | Other:  | Steers: | Bulls: | cattle |
|       | Heifers 2+: | Heifers:  | Calves: | Heifers 2+:  | Heifers:  | Calves: | 1+:     | 1+:    |        |
| 1920  | 21,455      | 4,419     | 4,380   | 12,530       | 3,989     | 12,046  | 10,031  | 1,585  | 70,435 |
| 1925  | 22,575      | 4,177     | 4,306   | 11,204       | 3,208     | 9,225   | 7,197   | 1,481  | 63,373 |
| 1928  | 22,287      | 4,197     | 4,662   | 8,870        | 2,569     | 7,893   | 5,457   | 1,387  | 57,322 |
| 1930  | 23,106      | 4,850     | 5,198   | 9,104        | 2,803     | 8,873   | 5,597   | 1,467  | 61,003 |
| 1932  | 24,982      | 5,019     | 5,448   | 10,337       | 3,118     | 9,725   | 5,562   | 1,579  | 65,770 |
| 1934  | 27,059      | 5,381     | 5,674   | 12,493       | 3,640     | 12,201  | 6,064   | 1,750  | 74,262 |
| 1935  | 26,236      | 5,002     | 5,249   | 10,827       | 3,330     | 10,914  | 5,306   | 1,665  | 68,529 |
| 1936  | 25,622      | 4,834     | 5,496   | 10,912       | 3,493     | 10,517  | 5,695   | 1,644  | 68,213 |

The number of cattle<sup>on</sup> farms January 1, 1937 is expected to show a further decrease, the extent of the reduction depending somewhat on the number of cattle and calves slaughtered during the last 3 months of this year. The slaughter of cattle under Federal inspection during the first 9 months of 1936, totaling 7,877,000 head, was the second largest for the period on record. Slaughter of calves during the same period of 4,514,000 head was also the second largest, and the combined slaughter of cattle and calves, amounting to 12,391,000 head, was the largest of record for the period.

Slaughter of cattle and calves during the last 3 months of 1936 is expected to continue large, although the increase over the corresponding months of 1935 may be less marked than during the 3 months, July to September. It was during the latter period that marketings forced by the drought in the Northern Plains States were greatest. Heavy marketings of both cattle and calves from all of the area where feed production was greatly curtailed by the 1936 drought are expected to continue until the end of the year. In most other areas the high prices of feed grains and of hay and roughage, will cause a close culling of dairy stock and farm herds. Total slaughter in 1936 of cattle and calves under Federal inspection is now estimated to reach 17,500,000 head, or about 1,500,000 head more than the largest commercial slaughter in any other year on record.

Although the number of cows of breeding age on farms January 1, 1936 was about 500,000 head smaller than on January 1, 1935, the calf crop was larger in 1936 than in 1935. Reports from most of the important cattle-producing States indicate that the 1936 calf crop, as a percentage of cows in herds, was above average, and was considerably above that of 1935 when it was the smallest in recent years because of the poor condition of cattle in the spring of 1935 following the 1934 drought.

### Beef Cattle - 3

After making allowance for the increase in cattle imports and the smaller death losses in 1936 as compared with 1935, and assuming the usual relationship of inspected slaughter to total slaughter, a slaughter of cattle and calves under Federal inspection of 17,500,000 head would be expected to result in a decrease in cattle numbers on farms at the end of 1936 of 3 to 4 percent.

The character of the slaughter supply of cattle during the first 8 months of 1936 was considerably different from that in the corresponding period of 1935. The proportion of all steers, and especially of fed steers of the better grades, was larger this year than last but was below average, while the proportion of cows was correspondingly reduced. In actual numbers, however, the slaughter of cows was larger this year than last and was the largest for the period in the 15 years of record. Slaughter of both steers and cows for the year is expected to reach new record totals, with the proportion of cows considerably above average.

Slaughter of both cattle and calves in 1937 is expected to be much smaller than in 1936, and somewhat smaller than in 1935 or 1934, but it is likely to be somewhat larger than the average of the 5 years, 1929-33. The slaughter supply in 1937 will include a relatively small number and proportion of the better grades of fed cattle.

#### Fewer Cattle to be Fed for the 1937 Market

As a result of the small supplies and relatively high prices of feed grains and concentrates, and the higher prices of hay and roughage, the number of cattle to be grain-finished for market during the winter feeding season of 1936-37 and during the spring and summer of 1937 is expected to be much smaller than a year earlier and may be no larger than the number fed after the 1934 drought. Most of the reduction in cattle feeding will be in the Corn Belt States especially those west of the Mississippi River where the corn crop was most severely damaged by the drought. Some increase in feeding is expected in the area west of the Continental Divide, and other local areas outside the Corn Belt may show some increase.

Although the number of cattle fed in the Corn Belt during the coming year will be sharply reduced from a year earlier, a rather large movement of unfinished cattle into these States during the last half of 1936 is probable. In a number of these States where grain production from the corn crop was greatly reduced by the drought, supplies of hay and roughage are fairly large and much of these supplies, especially of corn fodder and stover, must be disposed of before next spring if they are to be utilized. Such feed supplies usually can be used to best advantage in roughing cattle through the winter.

Shipments of stocker and feeder cattle, inspected at stockyard markets, moving into the Corn Belt during the 3 months July to September this year were somewhat larger than those for the corresponding months last year. With the marked improvement in pastures and meadows after the rains of August and September, and the good prospects for winter wheat pastures in the western winter-wheat belt, a continuing good demand for stock cattle for the remainder of the year is to be expected. Shipments during this period probably will be fairly large.



## Beef Cattle -4

The outcome of feeding operations this year will be determined by the advance that takes place in the prices of fat cattle during the next few months. Results from feeding cattle that were marketed between February and August this year were generally unprofitable. Despite this situation the spread between price of slaughter steers and of stocker and feeder steers was unusually narrow during the spring and early summer. Although this spread widened somewhat during August and September, prices of stocker and feeder cattle remained high relative to prices of fat cattle, in view of the high prices of feed grains. The average market price of stocker and feeder steers from July to September was only about \$1.50 per 100 pounds lower than for the same period in 1935. The total cost of producing grain-finished cattle (cost of the unfinished cattle plus the cost of feed) will be considerably higher during the 1936-37 feeding season than it was during the 1935-36 season since the reduction in the price of feeder cattle will not offset the higher costs of feed, except possibly with cattle fed for a very limited period. Hence cattle prices will have to be substantially higher in 1937 than in 1936 if cattle feeding is to be on a profitable basis.

### Imported Supplies

Total imports of live cattle, calves, canned beef, and fresh and frozen beef during the first 8 months of 1936, when converted to a live-weight equivalent were equal to about 4.2 percent of the estimated total live weight of all cattle and calves slaughtered in the United States during the same period. In the first 8 months of 1935, they were equal to 3.4 percent of the total. The increase in imports of cattle and beef in the period January to August, 1936, over the corresponding months of 1935 was equivalent to 1.1 percent of the total slaughter of cattle and calves during this period.

Imports of dutiable cattle and calves in the first 8 months of 1936 were 28 percent larger than in the same period of 1935, as shown in the accompanying table. However, they were somewhat smaller than in 1929 when import duties were lower and domestic cattle prices were higher. The increase in cattle imports thus far in 1936 has been entirely in cattle weighing 700 pounds and over, on which the duty was lowered from 3 cents to 2 cents per pound, under the Canadian Trade Agreement. Nearly 90 percent of the imports of this class of cattle in 1936 came from Canada, as has been the case in earlier years. The number of cattle weighing 700 pounds and over permitted entry from all sources at the lower rate of duty for any one year is limited by the agreement to 156,000 head, and by early October practically all of this number had been imported. Imports of such cattle during the remainder of the year will be subject to a duty of 3 cents per pound.

CATTLE: Dutiable imports into the United States from Canada  
and Mexico, and average farm prices, averages  
1925-29, 1930-34, annual 1935 and 1936

| Period     | Canada      | Mexico      | Total from<br>Canada<br>and<br>Mexico | Weighted average<br>farm price of<br>beef cattle<br>per pound |
|------------|-------------|-------------|---------------------------------------|---|
|            | <u>Head</u> | <u>Head</u> | <u>Head</u>                           | <u>Cents</u>  |
| Averages:  |             |             |                                       |   |
| 1925-1929  | 224,300     | 143,073     | 367,373                               | 7.63  |
| 1930-1934  | 16,816      | 91,278      | 108,094                               | 4.87  |
| 1929       | 247,876     | 244,733     | 492,609                               | 9.15  |
| 1935       | 112,720     | 251,090     | 363,810                               | 6.24  |
| Jan.-Aug.: |             |             |                                       |   |
| 1935       | 84,069      | 171,993     | 256,068                               | 6.28  |
| 1936       | 136,361     | 135,061     | 331,422                               | 6.01  |



Comparisons of cattle prices at Winnipeg and Toronto with those at Chicago for the period November 1934 to September 1936 indicate that changes in prices at the two Canadian markets tended to follow changes in prices at Chicago fairly closely but with some lag. The spread between cattle prices in Canada and the United States increased greatly from late 1934 to early 1935 and continued relatively wide in the remainder of 1935. During 1936, the spread tended to narrow somewhat, with the decrease in spread between Chicago and Toronto larger than that between Chicago and Winnipeg.

Prices of steers at Winnipeg, Toronto, and Chicago, and spread between prices at Chicago and Winnipeg, and Chicago and Toronto, by months, November 1934 to September 1936.

| Year and Month | Winnipeg    | Toronto     | Chicago average        | Spread between              |                            |
|----------------|-------------|-------------|------------------------|-----------------------------|----------------------------|
|                | Good Steers | Good Steers | good and medium steers | Chicago and Winnipeg prices | Chicago and Toronto prices |
|                | Dollars     | Dollars     | Dollars                | Dollars                     | Dollars                    |
| 1934           |             |             |                        |                             |                            |
| Nov.           | 3.54        | 4.10        | 3.44                   | 2.90                        | 1.54                       |
| Dec.           | 3.85        | 5.45        | 3.39                   | 3.04                        | 1.44                       |
| 1935           |             |             |                        |                             |                            |
| Jan.           | 4.18        | 5.55        | 3.75                   | 4.37                        | 3.20                       |
| Feb.           | 5.07        | 5.94        | 3.38                   | 4.11                        | 4.74                       |
| Mar.           | 5.83        | 6.71        | 10.46                  | 4.53                        | 3.72                       |
| Apr.           | 6.26        | 7.08        | 10.30                  | 4.64                        | 3.82                       |
| May            | 6.81        | 7.19        | 10.60                  | 3.80                        | 3.50                       |
| June           | 6.21        | 6.75        | 3.85                   | 3.64                        | 3.10                       |
| July           | 5.65        | 6.39        | 3.26                   | 3.61                        | 2.87                       |
| Aug.           | 5.38        | 6.54        | 3.58                   | 4.20                        | 3.04                       |
| Sept.          | 4.72        | 6.75        | 3.66                   | 4.34                        | 3.11                       |
| Oct.           | 4.38        | 5.32        | 2.68                   | 3.30                        | 3.76                       |
| Nov.           | 4.69        | 5.74        | 3.36                   | 4.69                        | 3.64                       |
| Dec.           | 4.83        | 6.29        | 3.42                   | 4.59                        | 3.13                       |
| 1936           |             |             |                        |                             |                            |
| Jan.           | 4.81        | 6.29        | 3.23                   | 4.42                        | 2.34                       |
| Feb.           | 4.28        | 6.30        | 8.62                   | 4.34                        | 2.32                       |
| Mar.           | 4.58        | 5.48        | 8.62                   | 4.04                        | 3.14                       |
| Apr.           | 4.60        | 5.48        | 8.30                   | 3.70                        | 2.32                       |
| May            | 4.41        | 5.16        | 7.76                   | 3.35                        | 2.60                       |
| June           | 4.43        | 5.32        | 7.53                   | 3.10                        | 2.21                       |
| July           | 4.54        | 5.33        | 7.81                   | 3.27                        | 2.48                       |
| Aug.           | 4.94        | 5.54        | 7.30                   | 2.36                        | 2.56                       |
| Sept.          | 4.70        | 5.57        | 8.56                   | 2.79                        | 2.36                       |

Although the reduction in the duty probably was responsible for a part of the increase in cattle imports in 1936, it is likely that imports of cattle from Canada this year would have increased considerably even if there had been no change in the duty. Following the favorable returns from feeding in the winter and spring of 1934-35, which resulted from the high prices obtainable in the United States markets, cattle feeding in Canada in 1935-36 was considerably expanded - as was also the case in the United States. The large shipments of cattle to the United States during the first half of 1936 over the corresponding period in 1935 were partly a result of this increased feeding. The cattle that came to the United States in the first half of 1935 paid a duty of \$3 per 100 pounds, while those in the first half of 1936 - under the reciprocal trade agreement - paid only \$2. A comparison of the spreads in prices of cattle between Winnipeg and Chicago during the first half of 1935 and the first half of 1936 indicates that the number of cattle imported from Canada into this country this year was not materially increased as a result of this reduction in the duty.

## Beef Cattle - 6

The number of cattle imported into the United States in 1937 will depend partly upon the level of domestic cattle prices and partly upon the supply of Canadian cattle available for shipment. Although cattle prices in the United States in 1937 are expected to be higher than in 1936, it seems probable that the number of cattle fed in Canada this fall and winter will be smaller than a year earlier, in view of the reduced Canadian feed supplies and the unfavorable results from cattle feeding last winter. Consequently, total imports of cattle from Canada in the first half of 1937 probably will be no larger and may be smaller than in the present year.

Imports of canned beef into the United States have been increasing for several years. For the first 3 months of 1936 such imports, amounting to 67,000,000 pounds, were 37 percent larger than for the same period of 1935, and were the largest on record. This increase in canned-beef imports has been brought about by the relatively high level of beef prices in this country and the restrictions placed upon imports of South American beef in European countries. Imports of fresh and frozen beef thus far in 1936 have been smaller than in 1935, but in both years the quantity of such beef imported was very small. The United States import duty on fresh chilled, frozen, and canned beef is 6 cents per pound.

The British Government has recently announced its intention to levy a duty upon imports of chilled and frozen beef from non-European countries and to regulate the volume of such imports from all sources. This program may have the effect of increasing the quantity of canned beef from South America available for shipment to the United States.

### Prices

Prices of the better grades of slaughter cattle experienced one of the most severe declines on record from mid-January to mid-June of this year. The weekly average price of Choice and Prime grade beef steers at Chicago dropped from \$13.27 to \$8.24 per 100 pounds during this period. Since mid-June a moderate recovery has occurred but prices are still much below those of a year earlier. The decline in the first half of the year was much greater than the usual seasonal decline for this period and was due in large measure to the greatly increased market supplies of grain-fed cattle. Prices of the lower grades of slaughter steers and butcher cattle were fairly steady from January to October and prices of such cattle in the latter month were only slightly lower than those of both mid-January and a year earlier.

Notwithstanding that prices of the better grades of cattle declined sharply in the first half of the year, the average price of all slaughter cattle was only slightly lower in the first 9 months than a year earlier. This was because of the increased proportion of the better grades in the total slaughter supply and the relatively small decline in the prices of the lower grades.

The total live weight of cattle and calves slaughtered under Federal inspection in the first 9 months of 1936 was 18 percent greater than that of the corresponding period a year earlier and represents probably a record total for commercial slaughter. Comparative data showing the number and live weight of cattle and calves slaughtered under Federal inspection, average prices paid, and total costs to packers in the 9-month period are presented in the accompanying table.

## Beef Cattle -7

Slaughter of cattle and calves under Federal inspection, January to September:  
Number of head, total live weight, average price and total amount paid  
by packers, 5-year average 1928-32, and years 1934-36.

| Nine<br>months<br>Jan.-Sept. | Federally inspected<br>slaughter 1/ |                 |                   |                   | Average price<br>per 100 pounds |              | Total cost<br>to packers |                    |
|------------------------------|-------------------------------------|-----------------|-------------------|-------------------|---------------------------------|--------------|--------------------------|--------------------|
|                              | Number                              |                 | Live weight       |                   | 2/                              |              | 1/                       |                    |
|                              | Cattle                              | Calves          | Cattle            | Calves            | Cattle                          | Calves       | Cattle                   | Calves             |
|                              | Million<br>head                     | Million<br>head | Million<br>pounds | Million<br>pounds | Dol-<br>lars                    | Dol-<br>lars | Million<br>dollars       | Million<br>dollars |
| Average                      |                                     |                 |                   |                   |                                 |              |                          |                    |
| 1928-1932                    | 6.0                                 | 3.5             | 5,736             | 601               | 8.56                            | 3.64         | 491                      | 58                 |
| 1934                         | 7.3                                 | 4.6             | 6,776             | 831               | 4.66                            | 4.72         | 316                      | 39                 |
| 1935                         | 6.7                                 | 4.2             | 6,116             | 768               | 6.80                            | 6.37         | 416                      | 54                 |
| 1936                         | 7.3                                 | 4.5             | 7,281             | 843               | 6.36                            | 7.14         | 463                      | 60                 |

1/ Excludes cattle and calves purchased by Federal Government for drought relief, 1934-1936.

2/ Computed from unrounded figures.

The expected decrease in market supplies of well-finished cattle in late 1936 and early 1937 probably will be accompanied by further advances in the prices of such cattle. The rise, however, probably will not be so great as that which occurred in late 1934 and early 1935. Prices of the lower grades of slaughter cattle are not likely to change greatly during the remainder of this year, but in the first half of 1937 they probably will advance at least as much as usual for that period of the year, since slaughter supplies of hogs will be much smaller than average.

If crop production and pasture conditions in 1937 are fairly normal, it is probable that a rather broad demand for replacement stock of all kinds will develop in the spring and summer of 1937. This demand will be most pronounced in areas where cattle numbers were sharply reduced by the droughts of 1934 and 1936, particularly in the West North Central and West South Central States and in other portions of the Great Plains. Such a development may result in relatively high local prices for cows and heifers in 1937. In general, it appears that the reduced supplies of cattle and hogs for slaughter, the probable improvement in consumer demand for meats, and the stronger demand for breeding stock will result in average prices for cattle of all kinds in 1937 higher than those which prevailed in 1936. The advance over the 1936 level probably will be greater in the second half of the year than in the first half.

### Cattle Production Outlook

Cattle numbers on January 1, 1936 were materially smaller than the peak numbers estimated as of January 1, 1934 but were much larger than those of January 1, 1928, the low point in more than 20 years, and were larger than the 15-year (1920-1934) average. All of the reduction from the peak of 1934 was in the area west of the Mississippi River and was mostly in cattle other than milk stock. The following table shows by geographical regions the estimated number of cattle on farms January 1 for selected years from 1920 to 1936 and the percentage of the United States totals in the areas east and west of the Mississippi River.



# Beef Cattle - 8

## Cattle numbers by regions

| Year | North<br>Atl.    | E.N.<br>Cent. | South<br>Atl. | E.S.<br>Cent. | W.N.<br>Cent. | W.S.<br>Cent.    | West-<br>ern<br>States | East<br>of<br>Miss.R. | West<br>of<br>Miss.R. | Percentage<br>East<br>of<br>Miss.R. | Percentage<br>West<br>of<br>Miss.R. |
|------|------------------|---------------|---------------|---------------|---------------|------------------|------------------------|-----------------------|-----------------------|-------------------------------------|-------------------------------------|
|      | <u>Thousands</u> |               |               |               |               | <u>Thousands</u> |                        |                       |                       |                                     |                                     |
| 1920 | 5,190            | 10,898        | 4,978         | 4,549         | 20,213        | 11,897           | 12,710                 | 25,615                | 44,820                | 36.3                                | 63.7                                |
| 1925 | 4,472            | 9,721         | 4,241         | 3,777         | 19,464        | 10,503           | 11,195                 | 22,211                | 41,162                | 35.1                                | 64.9                                |
| 1928 | 4,383            | 9,161         | 3,772         | 3,649         | 17,055        | 9,249            | 10,053                 | 20,965                | 36,357                | 36.5                                | 63.5                                |
| 1930 | 4,647            | 9,659         | 3,855         | 3,782         | 18,784        | 10,091           | 10,185                 | 21,943                | 39,060                | 35.9                                | 64.1                                |
| 1932 | 4,759            | 10,393        | 4,207         | 4,275         | 20,372        | 11,025           | 10,739                 | 23,634                | 42,136                | 35.9                                | 64.1                                |
| 1934 | 4,879            | 11,101        | 4,732         | 4,831         | 22,938        | 13,510           | 12,271                 | 25,543                | 48,719                | 34.4                                | 65.6                                |
| 1935 | 4,750            | 10,819        | 4,799         | 4,971         | 19,749        | 12,167           | 11,274                 | 25,339                | 43,190                | 37.0                                | 63.0                                |
| 1936 | 4,795            | 11,208        | 4,682         | 4,729         | 20,412        | 11,404           | 10,983                 | 25,414                | 42,799                | 37.3                                | 62.7                                |

Two of the four regions east of the Mississippi River had more cattle on January 1, 1936 than on January 1, 1920. The area east of the river as a whole had about 0.7 percent fewer cattle in 1936 than in 1920. Only one of the regions west of the river had more cattle in 1936 than in 1920. The total number west of the river in 1936 was 4.5 percent less than that in 1920. Much of the largest decrease between 1920 and 1936 took place in the Western States and amounted to nearly 2,000,000 head, or about 14 percent.

The region most seriously affected by the drought this year is the West North Central States and it is here that most of the reduction in cattle numbers in 1936 has taken place. The only other States outside the West North Central group where the effects of the drought this year may have caused sharp reductions are also west of the Mississippi River. Although numbers east of the river may be somewhat reduced this year, as a result of a close culling of dairy herds and rather heavy marketings of cattle and calves of all kinds, the reduction will be much less than that west of the river. This will increase further the already above-average proportion in the Eastern area of the total cattle in the country and decrease the proportion in the Western area.

Hence the rather favorable outlook for cattle producers during the next 2 years is especially favorable for those in the areas east of the Mississippi River and particularly those in the Southern States. The latter have not had to make the large expenditures for feed that were or will be a heavy burden on producers in other areas and especially those in the areas west of the Mississippi River as a result of the 1934 and 1936 droughts. The large increases in numbers in the South were chiefly accumulations in the years of low feed costs. They represent little actual outlay of money. At prices prevailing in 1935 and 1936, the money received for the relatively large marketings of cattle and calves from these Southern States have represented a substantial addition to cash income. In the more intensive cattle areas of the Cotton Belt the present tendency in production methods seems likely to increase the supply of veal and heavy slaughter calves more than that of other slaughter cattle. The trend of cattle numbers in the Southern States for the next few years will be influenced to a considerable degree by the adjustment in crop acreages of cotton and other cash crops. If these acreages continue small the number of cattle may be further increased.



## Beef Cattle - 9

If cattle numbers are reduced by 3 or 4 percent during 1936, as now seems probable, the number on January 1, 1937 may be the low point in the decline in numbers which started in 1934. Should feed production and range and pasture conditions in 1937 be fairly normal there will be a strong tendency to increase numbers in the West North Central and Northern Rocky Mountain States, where the decrease in the last 2 years has been the greatest. With prospects good for fairly high cattle prices in 1937 and for several following years numbers will tend to increase for several years.

Cattle numbers for the whole country can increase only when the number of calves born plus imports of cattle and calves, exceeds the total of cattle and calf slaughter and death losses. Slaughter is usually the most important of these items in determining the trend in numbers.

The number and classification of cattle on farms at the end of 1936 will still be such as to permit a slaughter under Federal inspection of about 15,000,000 head of cattle and calves and a total slaughter of about 24,000,000 head without causing a reduction in numbers. Such a slaughter would be much smaller than the estimated slaughter of 1936 but it would be large compared with the average of the preceding 10 years. It would not be too large to prevent fairly good returns to cattle producers during the next few years when supplies of hogs will be short. But if cattle numbers increase during the next few years, inspected slaughter will be less than 15,000,000 head, and prices during these years would be even more favorable. At the end of 3 years, however, when hog slaughter may again reach a volume equal to the 1929-33 average, the increased number of cattle and the resulting potential increased slaughter supply may make the situation of cattle producers, and of all livestock producers, less favorable than it will be for the next 2 years.



## THE OUTLOOK FOR SHEEP, LAMBS, AND WOOL FOR 1937

### Summary

The number of lambs to be fed for market this winter is very uncertain, but prospects now are that it will be larger than a year earlier. However, the effect of increased slaughter supplies of lambs upon lamb prices next winter and spring will be offset, at least in part, by the prospective improvement in consumer demand for meats. Hence, the average price of fed lambs in the 1936-37 fed-lamb marketing season may not be greatly different from that of 1935-36, when it was higher than for several years.

The lamb crop was 9 percent larger in 1936 than a year earlier. All of the increase occurred in the Western sheep States. Slaughter supplies of lambs in the new-crop marketing year did not begin to increase over a year earlier until September. Unfavorable weather and poor crop and pasture conditions delayed marketings somewhat. Lambs generally this year have not been in as good condition as a year earlier and the proportion of lambs in only "feeder flesh" in the market supplies has been above average.

Although the effects of the 1936 drought on total supply of feed grains in the country as a whole was almost as serious as those caused by the 1934 drought, the sheep industry will be much less affected this year than in 1934. This year, only a small part of the Western sheep region was included in the drought area, whereas nearly all of it was in the severe drought area in 1934. It seems probable, however, that further expansion in the western sheep industry will be prevented, and perhaps some decrease will occur as a result of the grazing-control measures for the public domain which are being put in effect under the Taylor Act. The number of sheep in the Native sheep States has increased moderately in recent years, and further increases may occur in the next few years if the Soil Conservation Program causes a substantial and permanent shift of acreage from grain to pasture and hay. But any probable increases in sheep numbers occurring in the Native sheep States will hardly be large enough to offset the probable decreases in the Western sheep States.

Although lamb prices will be strengthened somewhat in the next few years by the small total supplies of livestock for slaughter, they will probably be affected much less than prices of hogs and cattle. But as cattle and hog slaughter increases at the end of several years, the effect of this increase in supplies upon cattle and hog prices also will be much greater than the effect on lamb prices. On the whole, from the standpoint of lamb prices it appears that the situation of the sheep industry in the next 5 or 6 years will compare favorably with the situation for other species of meat animals.

Production of shorn wool in 1936 was slightly smaller than in 1935, and total supplies of wool on hand in this country at the end of September were about the same as a year earlier, when they were the smallest for several years. Supplies of wool in foreign countries also are below average.

The outlook for sheep, lambs, and wool - 2.

Domestic mill consumption in the first 8 months of 1936 was smaller than a year earlier, but <sup>it</sup> was larger than for other recent years. Mill consumption in most other important wool consuming countries has been relatively large in 1936.

The probable level of wool prices in the spring of 1937 when the new domestic clip will become available cannot now be determined. It seems probable, however, that stocks of wool in this country and in foreign countries will be much below average at the beginning of the domestic wool-marketing year April 1, 1937. On the other hand, consumption of wool by domestic mills in 1937 may not be so large as in 1936, although only a moderate decline is probable in view of the prospective further increase in incomes of consumers.

#### Sheep and Lambs

##### Supplies maintained

The 1936 lamb crop totaled 31,413,000 head according to the estimate of the United States Department of Agriculture. This number was about 2,500,000 head, or 9 percent more than the 1935 crop, 800,000 head, or  $2\frac{1}{2}$  percent larger than the 1934 crop, and only 200,000 head, or less than 1 percent smaller than the record crop of 1931.

The increase over last year's crop was all in the Western sheep States, since the native lamb crop was a little smaller this year than last. The increased lamb crop this year, compared with last, resulted largely from an increase in the percentage lamb crop (number of lambs saved per 100 ewes on January 1) from 81.0 to 86.5, there being an increase in the number of breeding ewes of less than 2 percent.

More than one-half the increase in the western lamb crop was in Texas, the 1936 crop in this State of 3,726,000 head being 1,521,000 head, or 69 percent larger than that of 1935. The increase in this State resulted mostly from the very large increase in the percentage lamb crop - from 46.0 in 1935 to 76.0 in 1936, although there was an increase of about 2 percent in the number of breeding ewes. The percentage lamb crop in Texas this year has been equaled only in one previous year and the total lamb crop was the largest on record.

Although the lamb crop of 1936 was considerably larger than that of 1935, the slaughter of new-crop lambs to the end of September was smaller than during the corresponding period in 1935. Total inspected slaughter of sheep and lambs from May 1 to October 1 this year was 6,863,000 head, compared with 7,765,000 in 1935. The slaughter last year, however, included a larger proportion of sheep and yearlings so that the decrease in slaughter of lambs was less than the decrease in the total. Although slaughter in each of the 4 months, May to August, was smaller than a year earlier, the supply increased in September and slaughter this year in that month was 50,000 head larger than a year earlier. Market receipts and slaughter in October and November also are expected to be heavier than a year earlier.



The outlook for sheep, lambs, and wool - 3.

### Lamb Feeding Situation Uncertain

Supplies of slaughter lambs from December to April depend largely upon the number of lambs moving into farm and commercial feed lots up to December 1. The supply of feeder lambs was larger this year than last. Likewise the proportion of lambs in feeder flesh was larger this year than last. A large part of the increase in feeder lambs was in Texas and a large lamb crop in Texas does not always result in a heavy movement of feeder lambs from that State. With feed conditions and winter feed prospects in Texas unusually good, and with the present relatively high prices for wool, many of these lambs may be kept over and shorn next spring and sold as grass fat yearlings. The final disposition of the Texas lambs this fall will depend upon whether producers think that prospective prices of wool and yearlings next spring make prices offered for feeder lambs this fall seem too low.

The lamb feeding situation remains rather uncertain. Shipments of feeder lambs, inspected through markets, for the 3 months July to September were 10 percent smaller than for the corresponding months last year and 17 percent less than the 5-year average. But the movement through markets will probably not be a dependable index of lamb feeding operations this year. The movement of ewes and lambs out of the bad drought area in the Northern Plains States has been heavy and only a relatively small part went to markets. Most of them went direct to pastures and ranges, to the east and the west, and many of the lambs will probably be grain finished before going to market or direct to packers.

Feeder-lamb contracting was active in May and early June over many western areas, but very little was done during July, August, and September. The early prices were relatively high and producers were not inclined to sell at the prices offered later. During early October contracting again became fairly active with prices about \$1 lower than those paid early. Most of these lambs were reported as bought to go to Corn Belt feed lots. The number of lambs contracted by feeders of northern Colorado and Scottsbluff, Nebraska until the middle of October was relatively small and there was much uncertainty as to what the volume of feeding in those areas would be. Reports from most of the States west of the Continental Divide, and from Texas, and New Mexico indicated a relatively large increase in feeding over last year.

The rainfall and temperature in late September and early October were favorable for the growth of winter wheat pastures in much of Kansas, Oklahoma, and northwestern Texas and prospects for good wheat pastures were promising. It is probable that by the middle of November there will be a heavy movement of lambs from Texas, New Mexico, and other southwestern areas to these pastures if they develop as in the fall of 1934. Lambs grazed on good wheat pastures with a little grain make slaughter animals that are fairly comparable to those finished in feed lots.

Despite the small production and high prices of corn over much of the Corn Belt, lamb feeding may not be much, if any, reduced from a year ago in that area. On the whole it seems probable that the number of lambs fed in feed lots and on wheat pastures may be somewhat larger than the number fed last year and not much different from 2 years ago.

The outlook for sheep, lambs, and wool - 4.

#### Prices Near Normal

Prices of spring lambs at the beginning of the new-crop marketing season in May this year were about \$3 per 100 pounds higher than a year earlier. In late May the top price of spring lambs at Chicago reach \$13, the highest price paid at that market for such lambs in the month of May since 1930. Because of the delayed marketings, prices for spring lambs held fairly steady during most of June, whereas they usually decline during that month. In late June and early July prices declined sharply and during August and September the trend was gradually downward, with September and October prices fluctuating around the levels of a year earlier.

Prices of slaughter ewes advanced steadily in the last half of 1935 and continued upward until April 1936 when they reached the highest levels in several years. A sharp decline in May and June was followed by slight recovery in early July, but prices have since receded to the lowest levels of the year. In early October they were slightly lower than a year earlier.

The general movement of lamb prices throughout 1936 has been more nearly normal than in 1935, when it was very abnormal. The higher level of prices in late 1935 and in the first half of 1936, compared with a year earlier, resulted largely from the improvement in consumer demand for meats and the higher level of wool prices in this period. In April, May, and June of this year the higher prices were due in part to decreased slaughter supplies in those months. Supplies of sheep and lambs in the fall and winter months of 1935-36, however, were larger than a year earlier.

The following table shows the total live weight, average price, and total cost to packers, for sheep and lambs slaughtered under Federal inspection for the first 4 months of the present lamb-marketing year, beginning May 1, 1936.

Sheep and lambs: Total live weight, average price, and total cost of inspected slaughter, May-August, 5-year average and 1934-36

| Season           | Total live weight | Average cost per 100 pounds | Total cost |
|------------------|-------------------|-----------------------------|------------|
|                  | Mil. lbs.         | Dollars                     | Mil. lbs.  |
| May to Aug.      |                   |                             |            |
| Average, 1930-34 | 444               | 7.18                        | 32         |
| 1934             | 414               | 7.37                        | 31         |
| 1935             | 507               | 7.55                        | 38         |
| 1936             | 417               | 9.07                        | 38         |

Prices of lambs in the fed-lamb marketing season, December 1936 to April 1937, probably will average no higher than in the corresponding season a year earlier. The number of lambs to be fed this fall and winter is now very uncertain but some increase over last year seems probable. The effect of these increased supplies of lambs on lamb prices will be offset, in part at least, by the prospective improvement in consumer demand for meats.

The outlook for sheep, lambs, and wool - 5.

### Production Outlook

The number of ewes in the Western sheep States was fairly stable from 1931-34 but a rather marked decrease occurred in 1934 as a result of the drought in that year. However, the number of lambs saved per 100 ewes declined considerably from 1931 to 1935, partly as a result of the financial situation in the industry, but the more important factor was the succession of years of deficient rainfall in the Western sheep States which culminated in the disastrous drought of 1934.

Number of breeding ewes on farms January 1 and lamb crop in the  
United States, 1930-36

| : Breeding ewes 1 year :    |          |         | Lambs saved per |           |         | :                     |           |        |
|-----------------------------|----------|---------|-----------------|-----------|---------|-----------------------|-----------|--------|
| Year: old and over Jan. 1 : |          |         | 100 ewes        |           |         | : Indicated lamb crop |           |        |
| : Native:                   | Western: | Total : | : Native:       | Western : | Total : | : Native :            | Western : | Total  |
| : Thou-                     | Thou-    | Thou-   | Number          | Number    | Number  | Thou-                 | Thou-     | Thou-  |
| : sands                     | sands    | sands   |                 |           |         | sands                 | sands     | sands  |
| 1930:10,081                 | 24,533   | 35,614  | 99.2            | 79.4      | 85.1    | 9,997                 | 19,470    | 29,467 |
| 1931:10,509                 | 26,005   | 36,514  | 100.3           | 81.1      | 86.6    | 10,537                | 21,078    | 31,615 |
| 1932:10,803                 | 26,352   | 37,155  | 104.3           | 71.2      | 80.8    | 11,264                | 18,771    | 30,035 |
| 1933:10,837                 | 26,195   | 37,032  | 104.1           | 70.6      | 80.4    | 11,286                | 18,497    | 29,783 |
| 1934:10,976                 | 26,251   | 37,227  | 102.4           | 73.7      | 82.2    | 11,243                | 19,355    | 30,598 |
| 1935:11,019                 | 24,650   | 35,669  | 104.9           | 70.4      | 81.0    | 11,559                | 17,348    | 28,907 |
| 1936:11,216                 | 25,081   | 36,297  | 101.4           | 79.9      | 86.5    | 11,376                | 20,037    | 31,413 |

Although the effects of the 1936 drought for the country as a whole may be almost as serious as those of the 1934 drought, the sheep industry will be much less affected this year than in 1934. Only a small part of the western sheep region is included in the drought area this year (the plains section of Montana, Wyoming, and South Dakota) whereas conditions over the rest of the region are average or better. In 1934 nearly all of the region was in the severe drought area.

The trend of sheep numbers in the Western States over the next few years will be determined to a considerable extent by the grazing policies to be followed on the public domain by the Grazing Administration of the Department of the Interior. As a result of the Amendment to the Taylor Act adopted at the last session of Congress, some 62,000,000 acres of additional public domain were added to the area to be established in grazing districts, thereby bringing the total to 142,000,000 acres. The number of livestock to be grazed in these districts will be controlled in the interest of preventing range deterioration and encouraging range improvement. More than any other species of livestock, sheep in a number of Western States are dependent upon the use of the public domain. Decreases in the number of animals permitted to graze there probably will be relatively greater with sheep than with other species. Permits for grazing on the National forests probably will be somewhat smaller than they were in 1936. Some of the sheep that may be excluded from the domain through these reductions may be relocated elsewhere in the western area but these reductions will probably prevent expansion in numbers of western sheep and may cause some decrease during the next few years.



The number of breeding ewes in the Native sheep States increased moderately from 1930 to 1935 and the native lamb crop has reflected this increase. Although the shortage and high prices of feed may prevent any further increases in numbers in the Native States in 1936, it is not expected that the numbers in farm flocks will be reduced, but such conditions may reduce the number fed for market compared with a year earlier. If the Soil Conservation Programs cause a considerable shift in acreage from feed and food crops to hay and pastures in the Corn Belt States over the next few years, a continuing increase in sheep numbers and in lamb and wool production in the Native sheep States seem probable.

In view of the probable changes in sheep numbers in the Western and Native sheep States and the proportions of the total sheep population in the two areas, it is expected that sheep numbers in the entire country will decline somewhat in the next few years.

From 1923 to 1932 sheep numbers in the United States increased more than 45 percent. Slaughter of sheep and lambs increased about 63 percent in this period, with the proportion of lambs included in the slaughter increasing steadily. The per capita consumption of lamb and mutton increased about 35 percent from 1921 to 1932. Since 1932 little change has occurred in sheep numbers although some decrease occurred as a result of the 1934 drought. Domestic wool production increased at about the same rate as sheep numbers. There was, however, no increase in total wool consumption, and the trend in imports of wool was sharply downward from 1923 to 1932. On a per capita basis the trend in domestic wool consumption has been downward in most of the post-war period.

Although lamb prices will be strengthened somewhat in the next few years by the small total supplies of livestock for slaughter, they will probably be affected much less than prices of hogs and cattle. But as cattle and hog slaughter increase at the end of several years, the effect of this increase in supplies upon cattle and hog prices also will be much greater than the effect on lamb prices. On the whole, from the standpoint of lamb prices it appears that the situation of the sheep industry in the next 5 or 6 years will compare favorably with the situation for other species of meat animals.

### Wool

#### Production and Stocks

World wool supplies in the spring of 1937 when the United States clip for 1937 comes on the market, are not expected to differ materially from those of 1936 which were much smaller than in 1935. Apparent supplies of raw wool for disposal in four Southern Hemisphere countries, which furnish between 80 and 90 percent of the wool entering international trade channels is estimated at 2,011,300,000 pounds or about the same as in 1935-36.

Preliminary estimates of production for the four Southern Hemisphere countries indicate an increase of about 3 percent compared with 1935, but this increase is almost entirely offset by the reduction in stocks as of July 1, 1936. The Australian wool clip of 1936 is estimated to be about the same as that of 1935, but is about 3 percent smaller than the 1934 clip. Increases in production in 1936 over 1935, however, were reported in Argentina, New Zealand, and the Union of South Africa.

The quantity of wool shorn in the United States in 1936 is estimated at 361,000,000 pounds, a decrease of 1 percent compared with 1935. The decrease was almost entirely due to a decline in the average weight per fleece as the number of sheep shorn was very little different from the number shorn in 1935.



The outlook for sheep, lambs, and wool - 7.

Wool production in 1936 in 21 countries producing over 75 percent of the world's supply, exclusive of Russia and China, is now estimated at 2,687,000,000 pounds, an increase of 2 percent above 1935. Production, however, is materially smaller than in the record years, 1931 and 1932. World production in 1935 is now estimated at 3,352,000,000, exclusive of Russia and China. Upward revisions in several Southern Hemisphere countries from the preshearing estimates have raised the total to about 1 percent above 1934. Production in 1935 was about 3 percent lower than in 1932, however. Wool production in the Southern Hemisphere declined from 1932 to 1935, whereas in the Northern Hemisphere it has been fairly stable since 1931.

Available supplies of apparel-class wool in the United States at the end of September were much below the average for recent years but were about the same as a year earlier. At the beginning of the new season on April 1, stocks of wool held by dealers and manufacturers were more than 100,000,000 pounds (grease basis) smaller than in April 1935. From April to September, however, imports of wool were about 30,000,000 pounds larger than in those months in 1935 while mill consumption was about 75,000,000 pounds smaller than in 1935. Total domestic production of shorn and pulled wool in 1936 is expected to be slightly smaller than in 1935.

In the period from October to March 1935-36, domestic-mill consumption totaled about 335,000,000 pounds grease basis. Even if consumption in the corresponding period of 1936-37 is considerably below that of a year earlier a substantial volume of imports will be needed, in view of the relatively small stocks now on hand. It appears probable, also, that stocks of wool in the United States on April 1, 1937, the beginning of the new wool-marketing year, will continue to be much below average and may be smaller than a year earlier.

Stocks of raw wool in the United Kingdom at the end of August were considerably smaller than at that date in the 3 preceding years. Stocks of wool tops in the principal commission combing establishments of France, Germany, and Belgium, at the end of August, were 25 percent smaller than at the end of August 1935, and were 30 percent smaller than the average stocks on that date in the 5 years 1930-34. Stocks of raw wool in warehouses in Japan at the end of June were estimated to be 72 percent larger than a year earlier and about 20 percent larger than in June 1934. Since May, Japanese buyers have not operated in the Australian market and stocks probably were considerably reduced during the third quarter of the year.

The carry-over of wool in Southern Hemisphere countries at the end of the 1935-36 season was considerably smaller than a year earlier and was also smaller than the 5-year average, 1929-30 to 1933-34.

The outlook for sheep, lambs, and wool - 8.

### Consumption and Trade

Manufacturing activity in the wool textile industry of the United States has been maintained at a high level for the last 20 months. In all but 2 months since January 1935 domestic mill consumption of wool has exceeded the average consumption for the corresponding month in the 10 years 1924-33. Since March 1936, however, mill consumption has been below that of the corresponding months in 1935 when it was greater than at any time since 1923.

From January to August 1936 domestic mills used 316,000,000 pounds of shorn wool, greasy shorn basis and 52,000,000 pounds of pulled wool, greasy pulled basis. Mill consumption on a scoured basis, in the first 8 months of 1936 was 8.5 percent smaller than in the same months of 1935 but was larger than in the corresponding period of any previous year since 1923.

Consumption of apparel class wool, greasy shorn basis, average 1924-33, annual 1934 and 1935 and January-August 1935 and 1936

| Period                 | Consumption           |
|------------------------|-----------------------|
|                        | <u>Million pounds</u> |
| Average 1924-33 .....  | 519.0                 |
| 1934.....              | 381.4                 |
| 1935.....              | 713.3                 |
| Jan. - Aug. 1935 ..... | 460.1                 |
| 1936 .....             | 393.9                 |

Mill consumption of apparel wool for 1935 on a grease basis was the largest for any year since 1919, and on a scoured basis it was the largest since 1923. There was a record low consumption in 1934. The improved consumer demand for wool products, government contracts for wool goods, increased demand for wool from the automobile industry, and the building up of inventories of manufactured and semimanufactured products were largely responsible for the high consumption in 1935. The high level of consumption thus far in 1936 was brought about by further improvement in consumer demand and in demand from the automobile industry.

Domestic mill consumption for the last 4 months of 1936 is likely to be smaller than in the corresponding period of 1935. Stocks of manufactured goods in the hands of distributors were reported to be large at the end of August and a period of liquidation was anticipated for the fall. Consumption for the year 1936, therefore, is likely to show a substantial decline as compared with 1935 but will be well above the average of recent years.

The outlook for sheep, lambs, and wool - 9.

Consumption in 1937 will depend to some extent upon developments in the final quarter of 1936. In view of the probable further improvement in consumer demand, mill consumption may not decline greatly in 1937 provided stocks of manufactured goods are reduced during the remainder of 1936.

Because of the record consumption of wool by the domestic wool manufacturing industry in 1935 and the increase in the margin between prices of domestic and foreign wool in the latter part of 1935 and early months of 1936 there was a sharp increase in imports of apparel wool into the United States. Imports for consumption of apparel wool in the first 8 months of 1936 totaled 75,000,000 pounds compared with 14,000,000 pounds in the same months of 1935 and were the largest for those months since 1929. With domestic mill consumption of wool likely to be considerably smaller in 1936 than in 1935 and with domestic wool production only slightly smaller than in 1935 it is not likely that imports in the early months of 1937 will be as large as in 1936.

Conditions in the wool textile industries of most foreign consuming countries except Germany and Italy showed considerable improvement in 1935 and in the early months of 1936. Unofficial estimates of wool consumption by mills in the United Kingdom indicate that consumption in 1935 was larger than in any year since 1927 for which statistics are available. There has been no check to the upward trend in the United Kingdom thus far in 1936. Consumption by English mills in the first 8 months of 1936 was estimated to be about 10 percent larger than in the same months of last year.

Since May, political and economic uncertainty in France and Belgium have combined to slow up business and to bring about restrictions in wool-manufacturing in those countries. The extent of purchases by Germany and Italy in the new Southern Hemisphere selling season will again be dependent upon the amount of foreign exchange available and the possibilities of barter transactions.

#### Prices

Wool prices in the domestic market rose almost continuously from May 1935 until March 1936. At the high point in March, prices of most grades of domestic wool at Boston were higher than at any time since 1929. In April and early May prices declined somewhat, probably as a result of the limited demand from United States mills and lower prices in foreign markets. Although some increase in domestic prices has since occurred, prices early in October were lower than the peak reported in March. Prices of territory combing wools in early October, however, were from 35 to 55 percent above prices in April 1935 when the 1935-36 advance began and prices of Ohio and similar combing wools were 35 to 65 percent higher. The greatest increases in prices of both territory and Ohio wools in the last year were in prices of the lower grades of such wools.

The outlook for sheep, lambs, and wool - 10.

Price movements in the foreign markets in the last year have been somewhat similar to those in the domestic market. However, the upward movement of foreign prices from March 1935 to March 1936 was not so continuous as the rise in the domestic market. At the high point in March 1936, prices in foreign markets were still considerably below the high point of January 1934. A rather general recession in wool prices occurred at London from March to July but the declines were not large and prices remained well above those of 1935. Since July, prices of merino wools at London have shown little change but prices of crossbred wools have advanced sharply. At the end of September, prices of crossbred wools grading 50s and below were at the highest levels since the early months of 1934.

The small supplies of domestic wool available in this country probably will prevent any substantial decline in prices during the remainder of the present wool marketing season (up to April 1, 1937) even with some decline in domestic mill consumption. On the other hand, the spread between domestic and foreign prices at the end of September 1936, was much wider than a year earlier and, unless foreign wool prices continue to advance, domestic prices cannot advance much further without attracting larger imports. No material advance in foreign prices appears probable in the next few months.

The level of domestic wool prices in the coming marketing year, beginning April 1, 1937 will be supported during the first half of the season by the probable small supplies in both the United States and other countries. Consumer demand in this country for wool products is expected to be somewhat stronger than in 1936, but domestic mill demand for unmanufactured wool probably will not be so strong as in 1935 and 1936. In view of the large mill consumption in the United States and some other countries in 1935 and 1936, it seems probable that stocks of finished and semifinished products are now relatively high. If the demand for wool by domestic and foreign mills next year is somewhat restricted, it is not probable that prices in 1937 will average higher than in 1936 despite the continued low level of supplies.



## THE MOHAIR OUTLOOK FOR 1937

The improvement in the mohair situation which started in the first half of 1935 continued through 1936. This improvement was evidenced by higher prices for mohair, a high rate of consumption, reductions in surplus stocks, lower production costs resulting from favorable feed conditions, and higher values of goats. However, mohair prices are now much higher relative to wool prices than they were in 1935. This incentive for wool manufacturers to use considerable quantities of mohair in wool fabrics, which accounted for a considerable part of the increased consumption of mohair, no longer exists. For the next year or two the consumption of mohair will probably be more dependent upon activity of the regular mohair manufacturers than in either 1935 or 1936. As a result of present high prices of mohair and favorable feed conditions, the number of Angora goats and mohair production will probably tend to increase.

Supplies are Abundant.

Stocks of mohair in the United States at the end of 1936 are expected to be somewhat smaller than a year earlier, although production and imports for consumption were larger than in 1935. Estimates of production have not yet been made, but reports from Texas on changes in the number of goats and receipts of mohair point to some increase in that State this year. Conditions in other leading mohair-producing States have been favorable. Production this year in the 6 leading States may reach 16,000,000 pounds, which will be an increase of about 1,000,000 pounds over 1935. Imports for consumption for the first 8 months of 1936 were about 1,000,000 pounds compared with about 20,000 pounds for the corresponding period in 1935. Most of the imports this year were from stocks held in bonded warehouses and such stocks are now reduced to about 1,057,000 pounds compared with 2,500,000 pounds two years ago.

Consumption is Lower.

Mohair consumption in 1936 to date has been at a considerably lower rate than during the same period in 1935 and the total for the year may be only about  $\frac{3}{4}$  as large as the unusually large consumption in 1935. To some extent the reduced consumption this year was a result of the decreased use of mohair by woolen mills. Record quantities were used in 1935 as a result of the relatively low price of mohair compared with the prices of wool and other fibers. The increased production of automobiles and furniture widened the outlet for mohair plush fabrics in 1935 and 1936 and a further increase in 1937 is anticipated. A confusing factor in the supply and consumption situation at present is the apparent large supply of mohair tops that were made in 1935 but are still in the hands of manufacturers as such.

Prices Continue to Advance

Prices of mohair, after advancing sharply during 1935, made a further advance in 1936. Boston prices of both medium, sorted mohair, and kid hair were higher this year than at any time since 1929. For the last few months medium mohair quotations have averaged about 61.5 cents a pound and first kid hair 87.5 cents. In 1932 and 1933 the prices were as low as 17.5 cents for mohair and 37.5 for the first kid.

Mohair - - 2 -

Prices to growers have advanced relatively more than market prices, the advance from the depression low being relatively the largest for any important agricultural product. Texas growers were getting as high as 60 cents a pound for fall-shorn mohair this year which is in sharp contrast with 6 to 10 cents, paid to growers at the low point.

#### Foreign Situation Varies as Between Countries.

Production of mohair in Turkey and the Union of South Africa in 1936 is expected to be about 12 percent larger than in 1935. Stocks in these countries were sharply reduced in 1935, however. Thus total supplies for the 1936-37 season (production plus carry-over) will be only about 20,000,000 pounds compared with a revised figure of 26,000,000 pounds for the 1935-36 season. The 1935-36 selling season saw fairly sharp advances in prices and these prices brought out considerable accumulated local stocks in Turkey that had not been included in carryover stocks.

The average export price of South African mohair for the 1935-36 season was 23 cents a pound compared with 13 cents in 1934-35 and 6 cents in 1932-33. In Turkey the price of fleece mohair at Istanbul averaged 25 cents for the 1935-36 season compared with 20 cents in 1934-35 and 8 cents in 1932-33. At the opening of the 1936 season prices were considerably higher in each country than a year earlier and these higher prices tended to slow up the movement somewhat. Nearly all of the 1935-36 mohair in Turkey went to Germany and Russia, with Great Britain taking most of the South African. The situation in the mohair manufacturing industry in Great Britain has improved materially in the last 2 years reflecting an expanding demand for velvets, furnishing fabrics, draperies, and imitation furs.

#### Outlook is for Increased Production.

Feed conditions are favorable in most of the important mohair-producing States and the high price of mohair will be an incentive to much better care of flocks than during the years when mohair prices were very low and goats had little value. Goat numbers and mohair production probably will be increased in 1937 and in 1938, if present favorable conditions continue. Mohair consumption in 1935 and 1936 considerably exceeded production, but this was a result of the relatively low price of mohair in comparison with other fibers. At prices as high as those now prevailing it is probable that consumption over a period of years would not greatly exceed present production in this country and any considerable increase in production would tend to decrease the effectiveness of the tariff protection. Also stocks of mohair and of mohair tops still are large relative to average stocks before 1930.

## THE OUTLOOK FOR HORSES AND MULES 1937

### Summary

The low point in the downward trend in the number of all horses and mules on farms is expected to be reached in 4 or 5 years, and the low point in the number of animals of work age will occur a few years later. During this period prices of horses and mules are expected to increase somewhat above present prices.

Increases in colt production, which began in 1933, have continued. In 1933 the increase amounted to 17 percent which was about double the percentage increase in 1935. With an average annual increase of 10 percent of the previous year's number for the next 4 years, colts raised in 1940 will number about 1,000,000 head. This number will be sufficient to offset the disappearance of old animals. At that time the number of all horses and mules on farms probably will be between 15,000,000 and 15,500,000 head, which is about 1,000,000 head less than the number now on farms.

Prices of both horses and mules increased considerably in the spring of 1936. The usual seasonal decline in prices occurred during the summer, and perhaps largely because of marketings of low-grade animals from drought areas and low purchasing power in such areas, average prices in September were little above those of September 1935. Demand has been principally for young animals, and especially for young mares suitable for both work and breeding.

Volume of sales of tractors increased considerably in 1935 and in 1936, indicating continued strong competition between the use of animal power and mechanical power. As the number of horses and mules continues to decline, a further switching from the use of horses to the use of tractors is to be expected. The extent to which tractors displace workstock in the next few years will not only affect prices for horses but will influence the number of animals needed for power on farms. With the non-farm outlet for work stock practically gone, and with large acreages of new lands for agricultural purposes no longer available, the need for work stock in the future will be much more limited than was the need for many years prior to 1918, when horse and mule numbers were increasing rapidly. Perhaps the maximum number needed for farm use is little different from the number now on farms. However, the need of replacing many old horses with younger animals is a factor tending to increase colt production.

Producers of horses for sale will need to follow closely during the next few years the volume of colts produced and the extent to which mechanical power displaces work stock. Obviously, the long-time outlook as here presented can be modified considerably by major changes in the volume of colt production and in the use of mechanical power.



## Numbers Continue to Decline

The number of all horses and mules on farms declined about 2 percent during 1935, which was about the same as the rate of decline that took place in 1933 and 1934. The 1935 decrease in the number of horses and mules 2 years old and over was partially offset by an increase of 177,000 head of colts under 2 years of age.

Estimated Number of Horses and Mules on Farms January 1 - by Age Groups

| Year                 | :Total horses | :2 years old | : 1 year to 2  | : Under one year |
|----------------------|---------------|--------------|----------------|------------------|
| Jan. 1               | : and mules   | : and over   | : years of age | : of age         |
| <u>Thousand head</u> |               |              |                |                  |
| 1920                 | 25,817        | 22,455       | 1,753          | 1,609            |
| 1925                 | 22,569        | 21,038       | 772            | 759              |
| 1930                 | 19,124        | 17,981       | 569            | 574              |
| 1931                 | 18,468        | 17,375       | 571            | 522              |
| 1932                 | 17,812        | 16,822       | 526            | 464              |
| 1933                 | 17,337        | 16,404       | 468            | 465              |
| 1934                 | 16,997        | 15,984       | 467            | 546              |
| 1935                 | 16,683        | 15,471       | 544            | 668              |
| 1936                 | 16,322        | 14,933       | 669            | 720              |

From January 1, 1930 to January 1, 1936 the number of mules of all ages on farms in the North Atlantic, South Atlantic and South Central States as a group decreased about 10 percent, and the number on farms in the North Central and Western States decreased about 23 percent. The first group of States normally depend upon the North Central and some adjacent States for their mule supply. The percentage decrease in the total number of horses on farms, during this period, was about the same in all regions.

The total number of horse and mule colts raised in 1935 which were on hand January 1, 1936, was 8 percent more than the number raised in 1934, but was 55 percent more than the number raised in either 1931 or 1932. The rate of increase in 1935 was less than that of 1933 and 1934. This decrease may have been due partly to the effects of the 1934 drought.

The increase in the production of mule colts has been relatively smaller than the increase in horse colts. The number of mule colts raised in 1935 was 45 percent more than the number raised in 1932, the low year in mule colt production.



Estimated Number of Mule Colts Under 1 Year of Age on Farms  
January 1, by Divisions

| Year                 | : North<br>:Atlantic | : South<br>:Atlantic | : South<br>:Central | :<br>: Total | : North<br>:Central | :<br>:Western | :<br>: Total | : U.S. |
|----------------------|----------------------|----------------------|---------------------|--------------|---------------------|---------------|--------------|--------|
| <u>Thousand head</u> |                      |                      |                     |              |                     |               |              |        |
| 1930                 | --                   | 1                    | 36                  | 37           | 35                  | 7             | 42           | 79     |
| 1931                 | --                   | 1                    | 33                  | 34           | 29                  | 6             | 35           | 69     |
| 1932                 | --                   | 1                    | 25                  | 26           | 24                  | 1             | 25           | 51     |
| 1933                 | --                   | --                   | 26                  | 26           | 22                  | 1             | 23           | 49     |
| 1934                 | --                   | --                   | 29                  | 29           | 20                  | 2             | 22           | 51     |
| 1935                 | --                   | --                   | 32                  | 32           | 22                  | 4             | 26           | 58     |
| 1936                 | --                   | 2                    | 40                  | 42           | 25                  | 4             | 29           | 71     |

The number of horse colts raised in 1935 was 57 percent greater than the number raised in 1931, the low point in horse colt production.

Estimated Number of Horse Colts Under 1 Year of Age on Farms  
January 1, by Divisions.

| Year                 | : North<br>:Atlantic | : South<br>:Atlantic | : South<br>:Central | :<br>: Total | : North<br>:Central | :<br>:Western | :<br>: Total | : U.S. |
|----------------------|----------------------|----------------------|---------------------|--------------|---------------------|---------------|--------------|--------|
| <u>Thousand head</u> |                      |                      |                     |              |                     |               |              |        |
| 1930                 | 8                    | 14                   | 65                  | 87           | 273                 | 130           | 408          | 495    |
| 1931                 | 8                    | 13                   | 57                  | 78           | 254                 | 121           | 375          | 453    |
| 1932                 | 8                    | 12                   | 51                  | 71           | 231                 | 111           | 342          | 413    |
| 1933                 | 7                    | 12                   | 59                  | 78           | 235                 | 103           | 338          | 416    |
| 1934                 | 9                    | 15                   | 73                  | 97           | 291                 | 107           | 398          | 495    |
| 1935                 | 12                   | 17                   | 91                  | 120          | 374                 | 116           | 490          | 610    |
| 1936                 | 13                   | 20                   | 97                  | 130          | 397                 | 122           | 519          | 649    |

On January 1, 1920, horse colts under 1 year of age were 6 percent of the total number of horses on farms. This proportion decreased sharply and reached a low point of 3.2 percent January 1, 1932, but has risen since that date to 5.6 percent. The decrease in all horses from 1920 to 1936 has been 42 percent. On January 1, 1920, mule colts under 1 year of age were 6.8 percent of the total number of mules on farms. This proportion dropped until January 1, 1933 when it was .9 of 1 percent. On January 1, 1936, only 1-1/2 percent of all mules on farms were colts under 1 year of age. The decrease in the number of mules from 1920 to 1936 has been 17 percent.

Since the Outlook report for 1936 was prepared a year ago, figures from the 1935 Census have become available. They indicate that the original estimates of the size of the colt crops (particularly the mule colt crops) of 1933 and 1934 were too large; also that the rate of increase in colt production was somewhat smaller than previously estimated. Consequently the long downward trend in horse and mule numbers will not end in 1936 as was previously forecast. Present indications are that the trend will continue downward for 4 or 5 years longer.

## Demand and Prices Stronger

Average farm prices of horses and mules in 1936 have been somewhat above those of 1935. Since the decline in the number of horses and mules of working age will continue for several years, prices are expected to show some upward trend during this period. The extent of the upward trend in prices will depend largely upon future colt production and the increase in use of mechanical power, and the general trend of agricultural production and prices.

## Average Farm Price per Head .

| Year | Horses          |                 | Mules          |                 |
|------|-----------------|-----------------|----------------|-----------------|
|      | <u>April 15</u> | <u>Sept. 15</u> | <u>Apr. 15</u> | <u>Sept. 15</u> |
| 1930 | \$70.20         | \$61.10         | \$87.00        | \$72.10         |
| 1931 | 61.00           | 52.00           | 72.90          | 62.00           |
| 1932 | 56.70           | 52.60           | 64.70          | 61.70           |
| 1933 | 60.70           | 62.20           | 68.20          | 70.40           |
| 1934 | 75.50           | 70.90           | 88.20          | 83.90           |
| 1935 | 90.90           | 87.70           | 105.90         | 103.40          |
| 1936 | 101.00          | 90.30           | 115.20         | 106.50          |

September prices of horses and mules are higher in 1936 than for any year since 1920 and represent an advance of more than 70 percent over prices in the low years 1931 and 1932. The September 15 average price for horses and mules this year was about 3 percent higher than that of last year. The seasonal peak reached in the spring of this year was well above that of 1935. The seasonal decline since April has been somewhat greater in 1936, than in 1935, probably owing to the marketing of horses in poor condition from the drought areas and to low purchasing power of farmers in those areas. Average yearly farm prices of both horses and mules have shown approximately the same rate of increase since 1932 in all regions.

Because of the large proportion of old horses and mules now on farms, a comparison of present farm prices with pre-war prices does not give a true picture of the price relationship. It is certain that present prices of good young horses and mules are much closer to pre-war average prices than are present average farm prices of all horses and mules.

Reports from the leading horse and mule markets indicate a continued strong demand for horses and mules, which is expected to be continued during the coming year. The demand for young mares has been somewhat stronger than that for heavy draft horses and medium to common horses.

The demand for purebred draft animals for breeding has shown some improvement during the year and prices have averaged higher than for the corresponding period in 1935.

## Production Outlook

Production of horses and mules on farms in the United States increased from 1850 to about 1918, after which a sharp decline reduced the number on farms to a point about equal to that of 1885. The situation confronting the producers of work animals at present, however, is much different from that confronting them during the period 1850 to 1918, when during much of the time horse and mule prices were relatively good. Large areas of new lands for farm use in the United States are no longer available, competition between animal and mechanical power has increased, and the non-farm outlet for horses is practically gone. It is believed that any substantial increase in the use of work stock on farms can come only from a shift from mechanical power to animal power.

Since the number of animals of working age will decline for the next several years, it is expected that the use of tractor power will continue to expand during this period. The rate and extent of this expansion will depend upon the cost of replacing horses and mules and the cost of buying and operating mechanical equipment.

In 1933 the production of all colts was increased for the first time in many years. The increase in 1933 was 17 percent over the preceding year. The colt crop of 1934 was 22 percent larger than that of 1933 which was the largest percentage increase on record. The crop of 1935 was 8 percent greater than that of the preceding year. A continued increase in the colt crop for the next 4 or 5 years at a rate of about 10 percent over each preceding year would be sufficient to offset the decline in the number of horses and mules of 2 years and more of age, and the low point in the present downward trend of all horses and mules would be reached about 1940, with a total of about 15 million to 15-1/2 million head of all ages on farms. The low point in the number of animals of working age would be reached a few years later. Since it is probable that the use of horses and mules on farms will not expand greatly, the number of working age on farms now may represent close to the maximum number needed.

Certain elements in the horse and mule situation are difficult to appraise at this time. Although it is known that a relatively large percentage of the horses and mules of working age are well along in years, no definite measure of this phase of the situation is available. The competition between animal power and mechanical power for farm work is increasing. Little is known of the probabilities of continuing to increase the annual rate of colt production. Because of these things it is evident that producers of horses and mules for sale should observe closely the trend of colt production and of the use of mechanical power during the next few years so that they will be able to make adjustments in colt production from time to time in line with future demand.





## THE DAIRY OUTLOOK FOR 1937

### Summary

The increase in the purchasing power of consumers and prospects that it will continue through 1937 and beyond, is an important factor in improving the dairy outlook. The decline in consumption of fluid milk and cream and ice cream which occurred during the depression has been halted and consumption is now increasing. The outlook for the next several years is for further increases in the consumption of fluid milk and cream and ice cream.

For the coming winter dairymen are faced with the general shortage of feeds resulting from the 1936 drought, and with the prospects that prices of milk and butterfat will average low in relation to feeds, and to prices of other classes of livestock. The longer time outlook is much more favorable. If harvests are more nearly average in 1937, prices of feeds will probably decline in relation to dairy products. Prices of hogs and beef cattle will probably continue relatively high in relation to butterfat for several years. Thus, the incentive to increase dairy production in the Corn Belt will not be as great as in the period 1920-34.

Imports of butter and cheese are already increasing, and it is probable that imports of these products will continue to exceed those of recent years until the new pasture season in 1937.

The number of milk cows per capita on January 1, 1937, will probably be somewhat below average, and there are prospects for some further decline in 1937 and 1938.

The outlook for the next few years is for some rise in butter prices in relation to prices of other commodities, including commodities which farmers buy. This will strengthen fluid milk prices in city markets. The prices of milk cows will probably increase materially during the next two years, and is likely to average rather high for four or five years.

### Prices

Changes in butter prices are closely related to the changes in the general level of prices of basic commodities, which are primarily raw materials. During the last 55 years there has been no consistent tendency for butter prices to rise or fall in relation to the general level of commodity prices in either the United States or England. In the three years 1933-35, however, the ratio of butter prices to prices of basic commodities in the United States averaged only 83 percent of pre-war (1910-1914), and in England only 84 percent of pre-war. There have been no marked improvements in the technique of butter production that would result in a permanent lowering of butter prices in relation to other commodities. In 1936, butter prices rose in relation to other commodities in both England and the United States, the ratio for the first 8 months of 1936 being 91 percent of pre-war. The long time outlook is for a further rise in butter prices in relation to the general level of prices of basic commodities. This rise will probably occur with further increases in the purchasing power of consumers.

Table 1 - Ratio of butter prices to wholesale prices of basic commodities,  
United States and England, specified periods.

1910-14 = 100

| Region        | Average<br>1880-1914 | Average<br>1925-1929 | 1933 | 1934 | 1935 | Jan. - Aug.<br>inclusive 1936 |
|---------------|----------------------|----------------------|------|------|------|-------------------------------|
| United States | 99                   | 104                  | 84   | 82   | 83   | 91                            |
| England       | 103                  | 101                  | 86   | 79   | 88   | 91                            |

Butter production during the summer was unusually low, and prospects are for low production during the 1936-37 feeding period. Butter prices during the coming winter will probably average the highest in 7 or 8 years. In the spring of 1937, with pastured more nearly normal, prices may show more than the usual seasonal decline. But even though the 1937 summer production may be back to normal, prices during the summer of 1937 will probably average higher than in any other summer since 1930, with the exception of 1936.

In the last 2 years butter prices have risen in relation to prices of fluid milk. This rise has greatly strengthened prices in fluid milk markets. Since last June prices in the great majority of fluid milk markets (prices paid by dealers for fluid milk for fluid use) have increased. With a prospect of increased consumption of fluid milk and cream in urban areas and of a rise in the purchasing power of butter, the long-time outlook is for these higher prices of fluid milk to be maintained and even increased. During the summer of 1937, however, there may be some tendency for fluid milk prices to weaken temporarily if dairy production recovers to a more normal level.

Since early summer the farm price of feed grains has increased more rapidly than the farm price of butterfat, and in August and September a pound of butterfat would purchase only 76 percent as many pounds of feed grains as in the 15-year period, 1920-34. (See Table 2) Farm prices of butterfat will probably continue relatively low in relation to feeds during the coming winter. Many dairymen are also short of feed.

The long-time outlook, however, is much more favorable. If feed crops are of approximately normal volume in 1937 and in following years, feed prices will probably decline in relation to dairy products. Farm prices of dairy products will probably average higher in relation to taxes, interest, and prices of manufactured products which dairymen buy, than in other recent years.

Table 2 - Pounds of products equivalent in price to 1 pound of butterfat, specified periods

| (Based on U. S. average farm prices) |                    |        |        |        |        |                           |
|--------------------------------------|--------------------|--------|--------|--------|--------|---------------------------|
| Item                                 | Average<br>1920-34 | 1929   | 1933   | 1934   | 1935   | Aug. and Sept.<br>1936 2/ |
|                                      | Pounds             | Pounds | Pounds | Pounds | Pounds | Pounds                    |
| Feed grains . . . .                  | 30.0               | 30.5   | 27.2   | 19.5   | 21.6   | 22.8                      |
| By-product feeds 1/                  | 25.7               | 26.5   | 22.1   | 18.3   | 22.8   | 24.2                      |
| Hay . . . . .                        | 62.9               | 78.0   | 55.3   | 43.1   | 53.9   | 66.0                      |
| Veal calves . . .                    | 4.38               | 3.71   | 4.11   | 4.77   | 4.01   | 5.12                      |
| Beef cattle . . .                    | 6.02               | 4.92   | 5.27   | 5.96   | 4.57   | 6.38                      |
| Hogs . . . . .                       | 4.82               | 4.78   | 5.34   | 5.41   | 3.35   | 4.05                      |
| Index numbers 1920-34 = 100          |                    |        |        |        |        |                           |
| Feed grains . . . .                  | 100                | 102    | 91     | 65     | 72     | 76                        |
| By-product feeds.                    | 100                | 103    | 86     | 71     | 89     | 94                        |
| Hay . . . . .                        | 100                | 124    | 88     | 69     | 86     | 105                       |
| Veal calves . . . .                  | 100                | 85     | 94     | 109    | 92     | 117                       |
| Beef cattle . . . .                  | 100                | 82     | 88     | 99     | 76     | 106                       |
| Hogs . . . . .                       | 100                | 99     | 111    | 112    | 70     | 84                        |

1/ Based on wholesale prices of by-product feeds.

2/ Adjusted for seasonal variation.

Farm prices of butterfat are relatively low in relation to hogs and this relationship is likely to continue until hog numbers are increased to more normal levels.

During the late summer of 1936, butterfat prices were somewhat higher in relation to beef cattle than in the same months of the 15-year period 1920-34. When the relatively heavy marketings of cattle resulting from the drought are over and farmers hold back cattle to build up their herds, butterfat prices will probably average relatively low compared with beef cattle.

#### Slight Decrease in Milk Cow Numbers

In early June the number of milk cows on farms in the United States was about 1 percent lower than in June 1935. Since June the drought has caused some further reduction, and by the first of the year milk cow numbers are expected to be down to about 25,200,000, or lower than in any January since 1932. Slaughter of cows, heifers and calves under Federal inspection has continued heavy. Dairy herds will probably continue to be rather closely culled until new grass is available. As milk cows are not high in price compared with other livestock, and as feed costs are relatively high, farmers are not likely to raise an unusual number of heifer calves of dairy breeding in the spring of 1937. The number of heifer calves raised for milking will probably not rise much above the number normally needed for replacement of aged cows until reserves of hay and grain have been replenished and the price of cattle encourages a general increase in numbers. Such conditions are not expected before late in 1937 or 1938, and it will probably be a year or two after that before the number of milking cows shows any material increase.

The Government disease control programs will probably eliminate somewhat fewer cattle during the coming 2 years than were eliminated during the past 2 seasons. Somewhat less than 600,000 cattle are expected to be slaughtered under the disease control programs in the fiscal year 1936-37, compared with about 635,000 in 1935-36 and more than 750,000 in 1934-35.

Table 3. - Numbers of Milk Cows and Heifers, and Heifer Calves being kept for milk cows, on farms in the United States, January 1.

|              | Cows & Heifers 2 years<br>old and over kept for<br>milk, January 1 |                                   | Heifers 1 to 2<br>years being kept<br>for milk cows Jan. 1 | Heifer calves<br>under 1 year<br>being kept for<br>milk cows Jan. 1 |
|--------------|--|-----------------------------------|--|---|
|              | <u>Thousands</u>   | <u>No. per hundred<br/>people</u> | <u>Thousands</u>   | <u>Thousands</u>  |
| 1925-29 Ave. | 22,418   | 19.1                              | 4,209  | 4,551   |
| 1930-32 Ave. | 23,991   | 19.4                              | 4,943  | 5,278   |
| 1933         | 26,030   | 20.8                              | 5,249  | 5,672   |
| 1934         | 27,059   | 21.4                              | 5,381  | 5,674   |
| 1935         | 26,236   | 20.6                              | 5,002  | 5,249   |
| 1936         | 25,622   | 20.0                              | 4,834  | 5,496   |

The number of milk cows per hundred of population is now smaller than in any year since 1931 but is about the same as the average during the period 1900-1925. During the next several years the rate of population growth seems likely to exceed the rate at which the number of milk cows will increase.



With a moderate number of milk cows, with an increasing demand for dairy products, and with prospects for favorable beef prices, the price of milk cows is likely to increase for several years. The price will probably continue high enough to provide a good market for heifers raised during the next year or two, and dairymen who raise sufficient young stock for replacement purposes should be able to dispose of their aged cows at rather good prices.

### Feed Supplies Short

The feed shortage is one of the principal factors in the outlook for the winter (1936-37). The total domestic supply of feed grains that can be utilized during the current 12-month period will be only about 67,000,000 tons compared with 62,500,000 tons following the drought of 1934, and the 1923-32 average of 100,000,000 tons. Grain production is low in nearly all States. Imports of grain are tending to reduce feed prices in coastal States, but will not go far to reduce the national shortage of grain.

The shortage of hay is not so serious as the shortage of feed grains. After allowing for a reduction in stocks during the current 12-month period, livestock will have about 8 percent less hay per head than the 1923-32 average, but nearly 30 percent more than in 1934-35. Allowing for the rather heavy summer feeding of hay because of poor pastures, there must be close utilization of available supplies, some increased feeding of straw and stover and close utilization of late fall pasture. Although some local shortages will be acute, no serious national shortage is in prospect.

Table 4 - Feed Per Unit of Livestock

| Feeding<br>year   | <u>Grain</u>   |                  |                         | <u>Hay</u>   |                  |                         |
|-------------------|--|------------------|-------------------------|--|------------------|-------------------------|
|                   | Pounds per unit of grain-consuming<br>animals on farms January 1 |                  |                         | Pounds per unit of hay-consuming<br>animals on farms January 1 |                  |                         |
|                   | Production <u>1/</u>   | Supply <u>2/</u> | Disappearance <u>3/</u> | Production   | Supply <u>4/</u> | Disappearance <u>3/</u> |
| 1928-33 Av.       | 1,446  | 1,690            | 1,472                   | 2,042  | 2,288            | 2,060                   |
| 1934-35           | 890  | 1,190            | 1,075                   | 1,443  | 1,628            | 1,516                   |
| 1935-36           | 1,496  | 1,653            | 1,412                   | 2,185  | 2,298            | 1,964                   |
| 1936-37 <u>5/</u> | 966  | 1,247            | 1,135                   | 1,806  | 2,150            | 1,944                   |

1/ Corn, oats, barley and grain sorghum.

2/ Production plus carryover on farms July 1 and estimate of wheat fed.

3/ Supply minus quantity remaining on farm at end of period.

4/ Production plus May 1 carryover on farms.

5/ October indication, allowing for some liquidation of livestock.

With average weather conditions the depleted stocks of grain and hay can be built up materially during 1937. The drought, causing some liquidation of cattle, will delay for a year or two the anticipated increase in hog numbers, so the number of consuming animals will be low for another year or two. The supply of grain per head of livestock, therefore, seems likely to be ample and milk cows will probably be liberally fed as long as prices of dairy products are favorable.

### Milk Production

The extent to which milk production during the winter of 1936-37 will be reduced by reduction in the rations of the cows will depend largely on how the prices of dairy products compare with feed costs and also on how returns from milk cows compare with current or prospective returns from other classes of



livestock. There will be close competition for the available feed supplies, and in some of the important butter producing States of the mid-west, the high price of hogs compared with butterfat, together with the shortage of feeds, may bring considerable decline in milk production. In many market milk areas prices for milk have increased, and although feed prices are also higher, dairymen have fed heavily in order to maintain production. Milk production per cow during this winter (1936-37) and early spring will probably average below that of the preceding year, but somewhat higher than in the same period of 1934-35, unless the winter should be unusually severe.

Total milk production in 1936 will probably be about the same as in 1935. Production during the winter of 1936-37 is expected to be considerably less than in 1935-36, but not greatly different from that in the winter of 1934-35. Milk production during the summer of 1937 will depend largely on pastures.

With prospects for little change in the number of milk cows during the next 2 or 3 years, any increase in total milk production as the result of increased demand and of more normal feed production will come largely from increased production per cow.

#### Utilization of Milk and Consumption of Dairy Products

In the depression period 1930-34 the estimated consumption of fluid milk and cream in cities and villages declined 6 percent. This decline has been halted, and preliminary tabulations for 1935 indicate an increase of 3 percent over 1934. Consumption in 1936 probably increased further. In the first 7 months of 1936, total receipts of milk, cream, and fresh condensed milk (in milk equivalent units) at Boston, New York, and Philadelphia exceeded those of the same period of 1935 by 3.3 percent.

The long-time outlook is for an upward trend in consumption of fluid milk and cream in cities and villages. During the winter of 1936-37, consumption of fluid milk and cream will probably be greater than in the winter of 1935-36, even though total milk production is less.

Commercial production of ice cream in 1933 was 42 percent less than in 1929. The consumption of ice cream was greatly reduced during the depression. Production increased sharply in 1934 and 1935, and trade reports for 1936 indicate that production in 1936 will be only 10 to 15 percent less than in 1929. With prospects for further improvement in employment and pay rolls, the outlook for the coming year and for several years is for higher production and consumption of ice cream.

Production of evaporated milk in the first 7 months of 1936 was approximately the same as the high production for the same period of 1935. The movement of evaporated milk from manufacturers' hands into trade channels, however, was 16 percent larger than in the same period of 1935 and 69 percent larger than in the same months of the pre-depression period, 1925-29. Consumption of evaporated milk increased during the depression. Production and consumption will probably be relatively high during this winter. The long trend in production of evaporated milk will probably continue upward.

Cheese production in 1936 was not reduced by the drought as much as was the production of butter. In the first 7 months of 1936, production was 13 percent larger than a year earlier, and the highest on record for those months. Apparent consumption of cheese in 1936 (7 months, January-July) was 11 percent greater than in 1935, and 36 percent above the 1925-29 average for the same months. The probable short supplies of meats during the next year or two will tend to maintain a relatively high demand for cheese. Cheese production and consumption will probably continue high compared with other recent years.

Creamery butter production was greatly reduced by the drought. Production in July was 17 percent less than a year earlier and the lowest for that month since 1923. Production in the first 7 months of 1936 was 3.0 percent less than in the corresponding period of 1935. Apparent consumption of creamery butter in this same period was 1 percent less than in 1935, and only 3 percent above the 1925-29 average.

Therefore, prospects are for lower milk production during the coming winter than in 1935-36, greater consumption of fluid milk and cream and ice cream, and relatively high production of cheese and evaporated milk. This means that production of creamery butter in the winter of 1936-37 will probably be considerable less than in the winter of 1935-36, and probably less than in the winter of 1934-35. Total production of manufactured dairy products, milk equivalent basis, during this winter is expected to be relatively low.

With more normal pasture conditions, and more normal production of feeds in 1937 and the next few years, the total production of manufactured dairy products (milk equivalent) will probably show a considerable increase from the low levels of 1936-37. In view of the probable number of milk cows, production per cow, and the trends in the utilization of milk that are in prospect, it does not seem probable that the total production of butter (farm and creamery) per capita in the next 5 years will exceed, to any great extent, the average for the 10-year period 1924-33.

Table 5 - Consumption of milk and cream in cities and villages and receipts of milk and cream at Boston, New York and Philadelphia.  
specified periods  
1930 = 100

| Item   | 1930  | 1933 | 1934 | 1935           | 1936           |
|--|-------|------|------|----------------|----------------|
| Consumption of milk and cream, cities and villages | 100.0 | 96.0 | 93.8 | 96.6 <u>1/</u> |                |
| Milk receipts, Boston, New York and Philadelphia   | 100.0 | 91.0 | 88.6 | 89.4           | 93.1 <u>2/</u> |
| Cream receipts, Boston, New York and Philadelphia  | 100.0 | 84.5 | 84.0 | 79.4           | 79.8 <u>2/</u> |

1/ Preliminary estimate.

2/ Based on 7 months data.

Table 6 - Index numbers of trade output of manufactured dairy products, 1929 and 1933 to date  
1925-29 = 100

| Commodity                         | 1929 | 1932 | 1933 | 1934 | 1935 | 1936 <u>1/</u> |
|-----------------------------------|------|------|------|------|------|----------------|
| Creamery butter . . . . .         | 102  | 110  | 109  | 114  | 108  | 103            |
| All cheese . . . . .              | 104  | 101  | 104  | 113  | 123  | 136            |
| Evaporated milk (case goods)      | 115  | 131  | 132  | 145  | 158  | 169            |
| Commercial ice cream <u>2/</u> .. | 111  | 68   | 65   | 79   | 87   |                |
| Total milk equivalent . . .       | 104  | 108  | 107  | 114  | 112  | 111            |
| Oleomargarine <u>2/</u> . . . . . | 123  | 71   | 87   | 94   | 136  | 140            |

Bureau of Agricultural Economics.

1/ Estimated on basis of 7 months' data.

2/ Production.

#### Storage Stocks Low

Storage holdings of manufactured dairy products usually reach the seasonal peak on September 1. On September 1, 1936 total stocks of manufactured dairy products were with the exception of 1931 and 1932 the lowest for that date since 1923. They were 32 percent less than the large stocks on September 1, 1935 and 21 percent below the 1925-29 average.

The low level of stocks of manufactured dairy products, together with the outlook for relatively low production during the coming winter, indicates that total domestic supplies will be below the level of recent years.

#### Foreign Supplies

Imports of cheese into the United States (for consumption) during 1935 of 49,000,000 pounds, were practically the same as in the 2 preceding years, but little more than one-half as much as the record importation of 81,000,000 pounds in 1927. In the first 8 months of 1936, total imports of 36,000,000 pounds were 20 percent larger than in the corresponding period of 1935.

Imports of cheddar cheese from Canada during the first 8 months of 1936, were equal to 2.3 percent as large as domestic production; in the same period of 1925-29 imports from Canada averaged 1.6 percent of domestic production.

The trade agreement with Canada went into effect on January 1, 1936. Total imports of cheese from Canada during the first 8 months of 1936 were 7,979,000 pounds compared with total imports from Canada of 569,000 pounds in the corresponding period of 1935 and 3,933,000 pounds in the same months of the 5-year period 1925-29 when the import duty was the same as in the present Trade Agreement. With the present relatively high level for domestic cheese prices, as compared with other recent years, it seems probable that total cheese imports during the coming winter may exceed those of other recent years.

Imports of cream, principally from Canada, continue negligible. Since January 1, 1936, the total imports of cream represent approximately one-half of 1 percent of the low-duty quota for Canadian cream for the entire year, and about one-fifth of 1 percent of the maximum yearly importation of 5,374,000 gallons reached in 1926.



In the important world markets butter prices are at practically the same level as a year ago. Domestic prices are decidedly higher. With domestic prices high in relation to world prices and with prospects for relatively low domestic supplies, it seems probable that imports during this winter will be larger than in 1935-36 or the average for the pre-depression years. (See Table 5).

Importation of butter is taking place at the same time that New York-over-London price margins are less by several cents than the full 14 cent import duty. But in Great Britain, European and Russian exporters realize less than London quotations, as the British government since 1932 has levied a duty equivalent to about 3.4 cents per pound on all non-Empire butters. Thus, even when allowance is made for trans-Atlantic shipping costs, European butter may be diverted from British markets to New York when prices differ as at present by as much as 11-12 cents on comparable grades of butter.

Table 7 - United States: Imports of dairy products for consumption, by years, 1925-29, 1933, 1934, 1935, and 8 months, January-August, 1935 and 1936

| Commodity    | 1925-29<br>average | 1933           | 1934           | 1935           | Jan. -<br>1935 | Aug.<br>1936   |
|--------------|--------------------|----------------|----------------|----------------|----------------|----------------|
|              | 1,000              | 1,000          | 1,000          | 1,000          | 1,000          | 1,000          |
|              | <u>pounds</u>      | <u>pounds</u>  | <u>pounds</u>  | <u>pounds</u>  | <u>pounds</u>  | <u>pounds</u>  |
| Butter . . . | 6,227              | 899            | 1,253          | 22,675         | 21,826         | 6,171          |
| Cheese . . . | 75,127             | 49,497         | 47,533         | 48,933         | 30,384         | 36,268         |
|              | <u>Gallons</u>     | <u>Gallons</u> | <u>Gallons</u> | <u>Gallons</u> | <u>Gallons</u> | <u>Gallons</u> |
| Cream . . .  | 4,395,381          | 25,074         | 346            | 793            | 543            | 8,944          |
| Milk . . .   | 5,860,750          | 47,258         | 24,736         | 22,061         | 14,193         | 41,911         |

#### The Dairy Situation and Outlook by Regions

North East: For the dairy farmer in the North East there are favorable and unfavorable elements in the present and prospective dairy situation. He is probably most immediately affected by the favorable elements. The improvement in business is increasing the consumption of fluid milk and making possible the strengthening of fluid milk prices throughout most of the northeastern region. Furthermore, the northeastern dairyman was less affected by the drought of 1936, although in parts of New York and Pennsylvania the damage was severe.

The greater demand for milk will mean that a smaller proportion of his total output will be sold as surplus. Therefore, he will receive a higher average price than is indicated by the changes now taking place in basic classes of milk. On the other hand, for the immediate future his costs of production are adversely affected by the high prices of grain and the relatively unfavorable relations between the prices of feedstuffs and milk. However, this unfavorable element will probably decrease with the coming of the pasture season and the proportionately heavier production of hay and other feeds during the coming season.



The Middle West: In the Middle West the competition between dairy production and other uses of feeds and labor results in repeated adjustments in the supply of dairy products to the supply of other animal food products and to the demand for each. It is likely that the relatively higher prices of meat animals as compared with dairy products, the present unfavorable ratio between dairy prices and feed prices, and the relatively small number of milk cows will all work toward the prevention of excessive production of dairy products in this region, within the next 5 years. The ultimate adjustment arising from prospective increase in hay and pasture is still uncertain. It is probable that such increase as may ultimately develop, with its corresponding increase in cattle, and hence in dairy production, may be offset by normal increases in population, accompanied by some increase in the per capita consumption of dairy products. It is not to be expected that any drastic change in animal feeding methods will result from the conservation program. There will probably continue to be an ample supply of feed grains produced to supplement hay and pasture in cattle rations, and to provide for adequate production of hogs. The increase in feed that may ultimately result from the prospective changes in land use will be in the form of more high quality pasture and roughage which will tend not only to form the basis of a somewhat enlarged dairy enterprise in this region but in the production of more beef cattle.

The West: Including the Pacific Coast States, the West was less affected by the drought during last season than any other region. It practically maintained its number of milk cows. It had average pasture conditions and hay production, about 81 percent of average feed grain production, and each month from January to October 1936 a milk production per cow above both 1935 and the 1925-33 average. In view of the national situation the dairymen of this region have a favorable outlook for the next 2 or 3 years.

The South: The number of milk cows in the Southern States in June 1936 was estimated at 2 percent less than a year earlier, in spite of an upward trend in the number of all cattle. Production of milk per cow in 1936 tended to be higher in the South Atlantic States than during the previous year. This tendency was reversed in the South Central States from June to September. Both areas were lower in milk production per cow in 1936 than the average for the years 1925-33. Some parts of the South were seriously affected by drought. Considerable increase in milk production in the South could be used to increase the consumption of dairy products in the area. Larger quantities of feed crops are in prospect as a result of the soil conservation program in that region, and the prospect is for a gradual increase in dairy production.



THE OUTLOOK FOR POULTRY AND EGGS FOR 1937

Summary

Poultry marketings in the fall and early winter are expected to be greater than in any recent year except 1931. This is because the feed shortage will cause much of the 1936 hatch, which was above that of 1935, to be marketed in that period. Little addition to laying stock will be made.

Storage stocks of frozen poultry, January 1, 1937 are expected to be exceptionally large because of larger marketings and because of a stronger speculative demand than in other recent years.

Numbers of chickens on farms, January 1, 1937 are expected to be only slightly larger than a year earlier because of the feed situation.

Numbers of chickens hatched in 1937 are expected to be slightly less than in 1936 because of the less favorable feed-egg ratio likely to prevail early in the year.

Poultry marketings throughout 1937 are expected to be less than in 1936 because heavy receipts this fall will be at the expense of receipts next spring and because fall receipts in 1937 will reflect the slightly smaller hatch in 1937.

Poultry prices are expected to decline more than average until mid-winter because of greater-than-average marketings. Because of the probable large storage stock, prices in 1937 are expected to average somewhat lower in the spring and slightly higher in the fall than in the corresponding periods of 1936.

Egg production per hen is expected to be less during the fall and winter 1936-37, about the same in the spring, and somewhat greater in the last half of 1937 than in the corresponding periods of 1936, because the feed-egg ratio in summer and fall of 1937 is likely to be favorable for feeding for egg production.

Egg marketings this fall and winter are expected to be about the same as those of 1935-36.

Egg marketings in 1937 are expected to be slightly greater than in 1936.

Egg prices during the fall and winter 1936-37 are expected to follow their usual seasonal course and average about the same as a year earlier.

Egg prices in 1937 are expected to average somewhat higher in the spring and somewhat lower in the fall than in the corresponding periods of 1936.

### Feed Situation Affected by Drought

The present feed situation will be a major influence in controlling both the numbers of poultry and the amount of egg production until early 1938. The quantity of grain feed likely to be available this winter is now indicated to be much less per grain-consuming animal unit than on January 1, 1936, but slightly more than on January 1, 1935 after the drought of 1934. As the drought is causing feed prices to rise more rapidly than egg prices the feed-egg ratio is unfavorable to feeding for egg production and is conducive to flock reduction (figure 1), being greater than its 1910-33 average in September.

#### The feed-egg ratio

(Number of dozens of eggs required to buy 100 pounds of poultry ration)

| Year                | Jan.  | Mar.  | May   | July  | Sept. | Nov.  | Dec.  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
|                     | Dozen | Dozen | Dozen | Dozen | Dozen | Dozen | Dozen |
| 1934.....           | 5.3   | 7.0   | 7.7   | 8.5   | 6.8   | 5.2   | 5.9   |
| 1935.....           | 6.5   | 8.4   | 7.4   | 6.7   | 5.2   | 3.8   | 3.9   |
| 1936.....           | 5.0   | 6.7   | 6.5   | 7.5   | 7.7   |       |       |
| Average 1910-33.... | 4.4   | 7.2   | 8.0   | 7.7   | 6.1   | 4.0   | 3.5   |

It is likely that, as after the 1934 drought, the feed-egg ratio will remain unfavorable during the coming winter and that it will become favorable in the spring.

### Poultry

Commercial hatchings increase.- Commercial hatchings reported in the 1936 season averaged, throughout the country, about 25 percent more than in 1935. The increase may be attributed to a more favorable feed-egg ratio during the hatching season and to the larger flocks on hand March 1, in 1936 than in 1935. Since the feed-egg ratio is likely to be less favorable in early 1937 than in 1936, it is expected that hatchings will be less than in 1936. In areas where a severe feed situation has caused heavy liquidation of laying flocks, the burden of replacement will fall heavily on commercial hatcheries. Commercial-hatchery capacity has been expanded. The commercial hatch in 1937 may be larger than in 1936 even though the total hatch may be less.



### Outlook for poultry and eggs - 3.

Numbers of chickens in farm flocks increase.- The larger hatch in 1936 was partly reflected in the 11 percent increase in chicks and young chickens reported in farm flocks on July 1. The total number of chickens per farm flock on October 1, 1936 was above that of a year earlier, being 142 birds. Available among these for fall and winter marketing were 31 nonlayers, 14 percent more than in 1935. The other main source of fall and winter receipts, mature hens, was 5 percent below that in 1935. A larger-than-usual proportion of hens is likely to be sold because of the 14 percent increase in number of pullets, available for replacement over those of a year earlier (figure 2).

Fall-winter marketings to be near record high.- Receipts of dressed poultry at New York, Chicago, Philadelphia, and Boston in the first 8 months of 1936 totaled about 12 percent greater than for the same period of 1935. Receipts of all poultry at New York, however, were about the same for these months (figure 3). Because of both the heavy hatch this year and the drought, receipts of poultry during the period of normally large poultry marketings, September to January, are expected to be greatly increased over those of a year earlier and to be exceeded only by the record receipts of 1931. Receipts of dressed poultry in September at the four markets were 27 percent greater than in September 1935. Since much of this represents unusually early and heavy marketings because of the drought, receipts throughout 1937 are likely to be smaller, particularly in the late winter and spring, than in 1936.

Foreign trade.- Poultry imports for consumption 1927-31, averaged about one-fourth of 1 percent of the total supply. Imports fluctuate from year to year.

#### Poultry: Imports for consumption and domestic exports

| Item            | : 1927-<br>: 1931<br>: average: | :<br>: 1932<br>: | :<br>: 1933<br>: | :<br>: 1934<br>: | :<br>: 1935<br>: | : 1936,<br>Jan. -<br>Aug. |
|-----------------|---------------------------------|------------------|------------------|------------------|------------------|---------------------------|
|                 | : 1,000<br>: pounds             | 1,000<br>pounds  | 1,000<br>pounds  | 1,000<br>pounds  | 1,000<br>pounds  | 1,000<br>pounds           |
| Imports         | : 5,716                         | 1,036            | 412              | 765              | 713              | 1,490                     |
| Exports         | : 3,582                         | 1,303            | 2,473            | 2,341            | 1,770            | 953                       |
| Dressed weight. |                                 |                  |                  |                  |                  |                           |

With rising prices, imports of both live and dead poultry in 1936, (January - August) were above those of a year earlier, though the duty was reduced on live poultry only.

Large stocks of poultry in storage.- Reflecting both the heavy marketings of late summer and the speculative belief that these will be at the expense of fresh supplies in the spring, storage stocks of frozen poultry on September 1, 1936 were the largest on record for the month (figure 4). This situation will probably prevail during the whole into-storage season so that the frozen stock on January 1, 1937 will be on a record level. These stocks will be a main source of supply during the spring of 1937.

Poultry prices close to 5-year average.- Poultry prices decline seasonally during the last half of the year reaching their lowest level in December. A rise of about 14 percent (1921-30 average) culminating in late spring usually follows. The farm price of chickens on September 15, 1936 was 14.9 cents per pound (figure 5) representing a somewhat greater than average seasonal decline.

Chickens: Prices received by producers

| Year                                | Jan.  | Apr.  | June  | July  | Aug.  | Sept. | Nov.  |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|
|                                     | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1935.....                           | 12.4  | 15.5  | 15.6  | 14.0  | 14.1  | 15.4  | 15.9  |
| 1936.....                           | 16.5  | 16.9  | 16.4  | 16.1  | 15.1  | 14.9  | ---   |
| 5-year seasonal                     |       |       |       |       |       |       |       |
| 1931-35....                         | 11.9  | 13.0  | 13.3  | 12.7  | 12.6  | 13.0  | 12.2  |
|                                     | Per-  | Per-  | Per-  | Per-  | Per-  | Per-  | Per-  |
|                                     | cent  | cent  | cent  | cent  | cent  | cent  | cent  |
| 1936 as a percentage of seasonal... | 138.7 | 130.0 | 123.3 | 126.8 | 119.8 | 114.6 | ---   |

That prices in 1936 have been falling close to the average of the 5 years, 1931-35, is shown in the last line of the table. This downward trend began with the first evidence of the large hatch for 1936 and is likely to continue until mid-winter when the storage stock will reach a peak. Poultry prices in the spring of 1937 will very likely be lower than in the spring of 1936. The seasonal decline in the summer and fall of 1937 is not likely to be as great, however, as in most years.

#### Eggs

Numbers of layers somewhat larger - The number of layers in farm flocks on October 1, 1936, 67 birds per flock, was 3.4 percent greater than in 1935.

Average number of layers in farm flocks

| Year       | Jan.   | Mar.   | May    | July   | Sept.  | Oct.   | Dec.   |
|------------|--------|--------|--------|--------|--------|--------|--------|
|            | Number | Number | Number | Number | Number | Number | Number |
| 1935.....  | 78.3   | 75.8   | 69.1   | 61.4   | 53.5   | 65.3   | 76.6   |
| 1936.....  | 80.6   | 76.7   | 70.5   | 62.3   | 59.9   | 67.3   | ---    |
| Average :  |        |        |        |        |        |        |        |
| 1926-32... | 68.9   | 85.3   | 77.6   | 69.9   | 66.4   | 71.4   | 82.5   |

There were 11 percent more pullets not yet of laying age in farm flocks on October 1, 1936 than a year earlier. It is expected because of the unfavorable feed-egg ratio likely to prevail, that continued flock culling will leave numbers of layers in farm flocks on January 1, 1937 only about 3 percent greater than a year before (figure 7).

Egg production responds to shifts in feed-egg ratio.- With the shift in the feed-egg ratio during the summer from favorable to unfavorable as regards feeding for egg production, the number of eggs laid per 100 hens and pullets of laying age in farm flocks declined more than is common seasonally from a relatively high rate of laying.

Eggs laid per 100 hens and pullets in farm flocks

| Year      | Jan. 1 | May 1  | July 1 | Sept. 1 | Nov. 1 |
|-----------|--------|--------|--------|---------|--------|
|           | Number | Number | Number | Number  | Number |
| 1935..... | 16.9   | 55.2   | 44.1   | 32.8    | 19.5   |
| 1936..... | 19.1   | 56.5   | 44.2   | 31.4    | ---    |
| Average : |        |        |        |         |        |
| 1926-35 : | 17.0   | 55.2   | 42.4   | 32.5    | 17.4   |

It is not likely, unless unusually mild weather prevails, that production per bird this fall and winter will average above that of a year earlier. The rate of production differs little from year to year in the spring, but in the last half of 1937, as new feed crops become available, a more favorable feed-egg ratio will tend to raise the rate of laying above that of the last half of 1936 (figure 8).

Outlook for poultry and eggs - 6.

Egg marketings larger than last year.- Receipts of eggs at New York, Chicago, Philadelphia, and Boston for the first 8 months were greater in 1936 by 11 percent, because of larger flocks and heavier production, than in 1935. In the commercial regions of New England and the Far West, the increase averaged about 40 percent. The larger flocks and lighter production per bird this fall are expected to maintain marketings during the rest of 1936 about equal to those of a year earlier. Receipts in 1937 are likely to be only slightly above those of 1936, especially during the first half of the year. During the last half of 1937 the rate of egg production may be increased and larger production and marketings will result (figures 9 and 10).

Foreign trade.- In 1935, as prices rose, egg imports for consumption increased from the levels set by the low prices and high duties of 1930-34. The greatest increase was in dried albumen.

Eggs: Imports for consumption, and domestic exports

|                       |               |           |           |           |           |           |
|-----------------------|---------------|-----------|-----------|-----------|-----------|-----------|
|                       | : 1927- :     | :         | :         | :         | :         | : 1936,   |
| Item                  | : 1931 : 1932 | : 1933    | : 1934    | : 1935    | : 1936    | : Jan. -  |
|                       | : average:    | :         | :         | :         | :         | : Aug.    |
|                       | : Million     | : Million | : Million | : Million | : Million | : Million |
|                       | : dozen       | : dozen   | : dozen   | : dozen   | : dozen   | : dozen   |
|                       | :             | :         | :         | :         | :         | :         |
| Imports.....          | 40            | 10        | 9         | 8         | 22        | 17        |
| Exports.....          | 18            | 2         | 2         | 2         | 2         | 2         |
|                       | :             | :         | :         | :         | :         | :         |
|                       | :             | :         | :         | :         | :         | :         |
| Shell-egg equivalent. |               |           |           |           |           |           |

Storage stocks of eggs are low.- Stocks of eggs in storage at the peak of the season on August 1, were much less in 1936 than for other recent years except 1932 (figure 11). This situation continued to prevail on October 1. It is likely that storage stocks will continue relatively low until after January 1, 1937 when stocks of shell eggs cease to be a major source of supply. Since frozen eggs may be held longer, the gradually increasing proportion of the storage stock so handled is of interest, for the less perishable product is not so likely to be sold in a way to depress prices unduly.



# Outlook for poultry and eggs - 7.

Egg prices.- Egg prices rise during the last half of the year, usually reaching a peak in November or December. The amount of this rise, which averages about 100 percent from the spring level, is often made greater than average by relatively low storage stocks or by an advance in consumers' incomes (figure 6), or made less than average by relatively heavy receipts. That the farm price has, since February, been from 25 to 30 percent above the comparable averages of the years 1931-35 has been largely due to an above-average level of consumers' incomes and below-average receipts (figure 12). The last line of the table shows that the farm price of 24.5 cents per dozen on September 15 represents about an average seasonal advance to that date, since the ratios do not change materially. It is likely that the average seasonal course of prices will be followed this fall and winter. Winter prices are commonly characterized by unpredictable temporary changes due to unusual weather.

Eggs: Prices received by producers

| Year        | Feb.    | Apr.    | June    | July    | Aug.    | Sept.   | Nov.    |
|-------------|---------|---------|---------|---------|---------|---------|---------|
|             | Cents   | Cents   | Cents   | Cents   | Cents   | Cents   | Cents   |
| 1935.....   | 25.6    | 20.0    | 21.0    | 21.7    | 22.7    | 26.4    | 30.1    |
| 1936.....   | 23.8    | 16.8    | 18.9    | 20.0    | 22.4    | 24.5    | ---     |
| 5-year      |         |         |         |         |         |         |         |
| average     |         |         |         |         |         |         |         |
| seasonal    |         |         |         |         |         |         |         |
| 1931-35.... | 18.8    | 13.4    | 13.7    | 15.1    | 17.0    | 20.2    | 27.0    |
|             | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| 1936 as a   |         |         |         |         |         |         |         |
| percentage  |         |         |         |         |         |         |         |
| of          |         |         |         |         |         |         |         |
| seasonal    | 126.6   | 125.4   | 138.0   | 132.4   | 131.7   | 121.3   | ---     |

In view of the expectation that production in 1937 will be only slightly above that of 1936; that the stock of frozen eggs carried into the new storage season will be less; and that both consumer demand for eggs and the demand by storage operators will be maintained above their 1936 strength, it seems probable that egg prices in the first half of 1937 will average about the same or a little higher than during the first half of 1936. During the last half, when the rate of production may increase, 1937 prices will probably be less than in 1936.



# THE TURKEY OUTLOOK FOR 1937

## Summary

Press and Radio  
Release Date-Nov.10-P.M.

The number of turkeys raised in 1936 is estimated to be about one-third larger than in 1935 and somewhat greater than the large number raised in 1932 and 1933.

Commercial hatchings of turkey poults increased 47 percent during the hatching season of 1936 over those of 1935.

Storage stocks of turkeys are expected to be larger than average at the peak on February 1, 1937.

Turkey marketings are expected to be greater than in 1935 because of increased production, but the tonnage will probably show less increase than the number marketed owing to the sale of birds at earlier ages and lighter weights as a result of feed shortage and high feed cost.

Turkey prices for the 1936 crop are expected to be lower than those for the 1935 crop during the period of heavier marketings from October to January.

Low turkey prices relative to feed prices in the fall of 1936 will discourage production in 1937. Turkey prices are expected to be higher during the fall of 1937 than in 1936 because of smaller numbers raised and an improved demand.

## Commercial Turkey Raising and Hatchings Expand

A rapid increase in the number of commercial turkey farms and large farm flocks of turkeys has occurred in the last few years because of improved management practices. Such flocks produce larger turkeys and have lower death losses than is true of ordinary farm flocks. The demand for turkey poults has greatly expanded commercial hatching. Large numbers of turkey eggs are shipped early in the hatching season from the Southwestern and Pacific Coast States into the Middle Western and Northern States.

Commercial hatchings of turkey poults increased 47 percent during the hatching season of 1936 over the corresponding period of 1935. Large increases were reported for all sections except the New England and Middle Atlantic States.

## Commercial hatchings in 1936 compared with 1935

| Geographic Sections     | New England and Middle Atlantic | South and Atlantic | East and North Central | West and North Central | South Central | Mountain | Pacific | U.S. |
|-------------------------|---------------------------------|--------------------|------------------------|------------------------|---------------|----------|---------|------|
| Increase 1936 over 1935 | 4                               | 55                 | 74                     | 39                     | 99            | 124      | 34      | 47   |

## Turkeys - 2.

The increase in commercial hatchings does not necessarily indicate a corresponding increase in the number of turkeys raised, since part of it undoubtedly is the result of a shift from farm hatching to the purchase of turkey poults.

### Largest Turkey Crop of Record

A big crop of turkeys is being raised this year, following 2 years of decreased production. From an estimated total of about 19,000,000 turkeys in 1932 and 1933, production fell to about 15,000,000 in 1935, owing mainly to the feed shortage of 1934-35. Production this year will be larger than in 1932.

Returns from crop reporters show a large increase in the average number of turkeys per farm. In the central states where the increase is greatest, the number of farms having turkeys increased also. The gain in the number and size of large commercial flocks is responsible for much of the increase, although the gain in small flocks is also large except in the south and west. An increase of about 20 percent is reported in the number of turkeys in farm flocks of small or moderate size. For large flocks the increase is about 75 percent. The reports indicate that the increase in all flocks must be at least a third over last year. Such an increase would mean at least 20,000,000 turkeys this year. This would be a top figure in turkey production.

Practically all parts of the country show increased numbers, the South Atlantic area alone reporting a small decrease owing to fewer flocks. The North Central and South Central areas, which together in 1929 produced about 60 percent of the turkeys raised in the entire country, show the greatest increase this year. This is natural in view of the big decrease there last year. The increase shown in those areas amounts to about 35 percent for small flocks and about 85 percent for large flocks. The Far Western States show a slight decrease in production by small flocks but for large flocks which are the more important factor in much of that area, they report more than twice as many turkeys as last year.

### Stocks of Turkeys in Cold Storage Above Average

Stocks on October 1, 1936 were larger than average. Larger-than-average storage stocks are to be expected at the seasonal peak on February 1, 1937 but high prices for competing foods will make turkeys and other poultry attractive to consumers.

#### Stocks of turkeys in cold storage

| Month      | 1931            | 1932            | 1933            | 1934            | 1935            | 1936            |
|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|            | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds | 1,000<br>pounds |
| February 1 | 7,018           | 14,273          | 16,728          | 19,941          | 23,516          | 20,541          |
| October 1  | 3,365           | 2,591           | 2,769           | 3,041           | 6,549           | 5,593           |



## Imports of Turkeys Insignificant

As a result of higher tariff duties and a lower price level, imports of turkeys were reduced from approximately 5,000,000 pounds in 1931 to about 500,000 pounds or less each year since 1932. Turkey imports are of little importance as compared with the average annual production estimated at about 200,000,000 pounds.

## Turkey Marketings - Large in Number, Light in Weight

The sharp increase in the number of turkeys raised this year compared with 1935 means an increase in the number of birds marketed. However, the increase in the tonnage of market receipts will probably not be so great as the number would indicate. The present unfavorable relation of turkey prices to feed prices and the absolute shortage of feed in some important turkey-producing areas will tend to cause the birds to be marketed at earlier ages and at lighter weights.

## Lower Turkey Prices in Prospect

Turkey prices probably will be low this year compared with their relation to other meat prices in recent years. Increased production and marketing of turkeys up to and including September 1936 had not been sufficiently large to reduce either farm prices or wholesale prices at New York below those of the corresponding months in 1935. This reflects the generally improved demand in 1936 as compared with the previous year. It is, however, expected that as the real movement of this year's large crop to market gets under way the farm price will reach lower levels than last season.

## Farm price of turkeys

| Year    | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 |
|---------|---------|----------|---------|---------|---------|---------|
|         | Cents   | Cents    | Cents   | Cents   | Cents   | Cents   |
| 1932-33 |         |          | 13.2    | 12.9    | 10.9    | 10.2    |
| 1933-34 |         | 10.7     | 11.3    | 11.8    | 11.1    | 11.6    |
| 1934-35 | 11.0    | 11.8     | 12.7    | 14.6    | 16.0    | 16.0    |
| 1935-36 | 13.1    | 14.4     | 15.9    | 19.9    | 21.3    | 19.9    |
| 1936-37 | 15.5    | 15.9     |         |         |         |         |

Wholesale prices may also be expected to show a decline during the marketing season of 1936 even though they did not in 1935. Meat prices at retail have declined and for September were lower in 1936 than in 1935. Prices of other poultry have been declining and the increased production of turkeys is sufficient to bring about a decline in wholesale turkey prices which was not in evidence by September.

Improved demand and higher feed prices should operate as price supporting factors but throughout most of the fall of 1936, wholesale turkey prices are likely to be lower than for the same period in 1935.

Turkeys - 4.

Wholesale price of fresh dressed turkeys in New York City

| Year                      | August | September | October | November | December |
|---------------------------|--------|-----------|---------|----------|----------|
|                           | Cents  | Cents     | Cents   | Cents    | Cents    |
| 1935                      | 31.00  | 31.00     | 31.00   | 31.13    | 31.39    |
| 1936                      | 31.78  | 31.50     |         |          |          |
| 5-year average<br>1931-35 | 34.92  | 33.52     | 29.86   | 26.49    | 25.42    |

Outlook for 1937 Favorable to Producers

Low turkey prices relative to feed prices during the fall and winter of 1936-37 will discourage production in 1937. Consumer demand for agricultural products is expected to be greater next fall than now. With anticipated smaller supplies and improved demand, turkey prices will be higher during the fall of 1937 than in 1936.

## THE CLOVER SEED AND ALFALFA SEED OUTLOOK FOR 1937

### Summary

Continued high prices for red clover, sweetclover, and alfalfa seed in the spring and fall of 1937 are in prospect because of the current short supplies of these seeds and the increased demand arising from the soil conservation program and from the great damage to the 1936 spring seedings by the drought. Stocks of these seeds at the close of the spring of 1937 are likely to be very small.

Supplies of clover and alfalfa seed are indicated to be about one-fourth smaller than those of 1934 and 1935, and about one-third smaller than the 5-year (1929-33) average. The decreased production in 1936 was due chiefly to the drought, but grasshoppers in some districts reduced greatly the production of these seeds, particularly alfalfa.

The carry-over of alfalfa is believed to be somewhat below average, while that of alsike, red, and sweetclover is much below average. The deficiency in the supplies of domestic seed from the standpoint of normal seeding requirements will probably be offset in part by the substitution of other crops, by decreased rates of sowing, and by a large increase in the imports of these seeds.

Current prices of these seeds to growers average about 85 percent more than at a corresponding time in 1935, about 15 percent more than in 1934, and about 80 percent above the 5-year average. Of the three clovers and alfalfa, sweetclover prices are relatively the highest compared with last year and the 5-year average, and alsike clover the lowest.

### Red-Clover Seed Scarce

Production of red-clover seed in 1936 was the smallest in 10 years. It is estimated at 34,500,000 pounds, compared with approximately 46,000,000 in 1935, 45,000,000 in 1934 and 73,000,000 pounds, the 5-year average. The largest decreases in the production this year from last year were in southern Iowa, northern Missouri, southern Indiana, southeastern Wisconsin, northern Illinois, and western Oregon. A larger production than last year was indicated for southern Idaho, central Illinois, northeastern Ohio, southwestern Wisconsin, and southern Minnesota.

The carry-over is the smallest in a number of years. Because of the very small carry-over and the very small crop in 1936, supplies of domestic red-clover seed will fall far short of meeting the normal sowing requirements. Imports of this seed, which have been almost nil for the last 5 years, will be large notwithstanding that imported red-clover seed is of limited adaptability. Imported red clover and imported alfalfa seed are stained in accordance with the provisions of the Federal Seed Act. Red-clover seed has already been purchased in Hungary, Poland, Rumania, Czechoslovakia, Canada, Chile, and a few other countries.

Current prices to growers are the highest in 8 years. They average \$23.50 per 100 pounds, basis clean seed, compared with \$13.35 last year, \$18.50 in 1934, and \$13.25, the 5-year average.

Because a large percentage of the new seedings of red clover in the spring of 1936 were killed by the drought and the high temperatures, another short crop of this seed in 1937 is in prospect unless the yields from the older seedings prove to be unusually high and a much larger percentage than usual of the total acreage is harvested for seed. Normally the bulk of the red-clover seed harvested in a given year is obtained from seedings that were made in the spring of the preceding year.

#### Alsike-Clover Seed Plentiful Now

Production of alsike-clover seed in 1936 was the largest in 7 years. It is estimated that approximately 23,000,000 pounds were produced, compared with about 18,000,000 pounds in 1934 and 1935, and approximately 24,000,000 pounds, the 5-year average. The increase over the last 2 years was caused by the larger acreage. The largest increases were reported for Illinois, northeastern Wisconsin, northern Indiana, northwestern Ohio, and northeastern Minnesota. The crop was shortest in western Oregon.

The carry-over of this seed is the smallest in many years chiefly because of a succession of six small crops and light imports. Some alsike-clover seed is being imported from Canada. The production there in 1936 is believed to have been somewhat larger than in 1935, but much smaller than that frequently obtained in that country. Alsike-clover seed probably will be substituted for red-clover seed, because of the higher price of the latter, wherever it is practicable to do so. Even with the likelihood of larger imports than in recent years, supplies are expected to be nearly exhausted by the end of next spring.

Current prices to growers average \$18.35, compared with \$14.30 last year, \$21.80 in 1934, and \$12.40, the 5-year average.

#### Sweetclover Seed Short

Production of sweetclover seed in 1936 was the smallest on record (since 1924). It is estimated that only about 21,000,000 pounds were produced, compared with approximately 31,000,000 pounds in 1935, 35,500,000 in 1934, and 49,000,000 pounds, the 5-year average. The crop in 1936 was smaller than in 1935 in nearly every important producing district, except possibly northeastern North Dakota and northwestern Ohio.

The carry-over is the smallest in a number of years. Although sweet-clover seed is being imported from Canada, practically the only source for imports of this seed, the quantity likely to be imported plus domestic supplies will fall far short of meeting the normal sowing requirements. During the period July 1 - October 15 imports of this seed were 460,500 pounds. The largest quantity ever imported in any year was 6,381,200 pounds, which occurred in the fiscal year ended June 30, 1926.



### Clover and alfalfa - 3

Current prices to growers are the highest in 10 years. They average \$8.25, compared with \$2.90 last year, \$6.20 in 1934, and \$3.60, the 5-year average.

#### Alfalfa-Seed Production Small

Production of alfalfa seed in 1936, estimated at approximately 43,500,000 pounds, was the smallest in 4 years. It was about one-fourth smaller than in 1934 and 1935, and almost one-sixth below the 5-year average. The decrease in production in 1936 was most marked in northern producing districts, where the decrease from the 5-year average amounted to 40 percent, whereas in the central and southern districts the decreases amounted to less than 5 and 10 percent, respectively. The biggest decreases in production occurred in States, such as Idaho, Montana, and South Dakota, that usually produce a large portion of the supplies of Grimm alfalfa and other hardy varieties or strains. These decreases will be offset in part by a production larger than usual in a number of the States lying mostly east of the 95th meridian, particularly Minnesota, Wisconsin, Michigan, and Ohio, which produce a rather hardy type of seed.

Although the carry-over of alfalfa seed is larger than that of any of the clovers, it is smaller than last year, and smaller than average.

Imports of alfalfa seed are expected to be the largest in 9 years. Up to September 15, 1936 approximately 1,750,000 pounds were purchased from dealers in Argentina. The Department has determined that alfalfa seed from that source is not adapted for general agricultural use in the United States. In recent years the imports of alfalfa seed were nil.

Current prices to growers for common alfalfa seed average \$19, compared with \$11.50 last year, \$17 in 1934, and \$11.35, the 5-year (1929-33) average. Prices for Grimm alfalfa seed ranged mostly from \$20 to \$25 in 1936, \$13 to \$15 in 1935, and \$24 to \$27 in 1934.



## THE POTATO OUTLOOK FOR 1937

### Summary

A slight increase in the acreage planted to potatoes in 1937 over that planted in 1936 is in prospect. On the basis of these increased plantings and if yields should be average, the United States production of potatoes in 1937 would total about 370,000,000 bushels. Such a crop is about average but would be about 15 percent more than the relatively short crop indicated for 1936 by October 1 conditions. A crop of this size would result in prices and incomes to growers somewhat less than what probably will be received for the short crop of 1936 but substantially higher than growers have received in other recent years.

Because of the widespread summer drought and a 10 percent reduction in the acreage planted to potatoes in 1936, production totaled 322,000,000 bushels (October indications) or about 65,000,000 less than the slightly larger than average crop of 1935. In the late States the crop is 15 percent less than in 1935, the shortage occurring only in the 10 Central States; the 8 Eastern and 12 Western States have either average or better than average crops. In the 11 early States the crop is 23 percent less and in the intermediate States 25 percent less than in 1935.

Because of the shortage in the early, intermediate, and 10 Central late States this season, prices of potatoes have held to unusually higher levels during the greater part of the 1936 marketing season. On September 15, 1936, the United States farm price of potatoes averaged about \$1.14 per bushel compared with 48 cents a year earlier, and was the highest September 15 average since 1929.

When the supply of potatoes is as short as it is during the 1936 season, an advance in price of potatoes in the late States may be expected from October to April or until the new-crop supplies are sufficient to affect the price situation. Prices to growers for both the late 1936 crop and the early 1937 crop should be relatively favorable until about the middle of 1937.

Although the demand for potatoes is relatively inelastic (that is, small crops usually result in larger total returns to growers than do large crops) it appears that over a long-time period potato growers would benefit, under present demand conditions, if they held their acreage close to the average of recent years, or 3,300,000 acres. This acreage, with yields varying from 100 to 120 bushels per acre, and averaging about 113 bushels per acre, would produce an ample supply of potatoes for all domestic requirements and would return growers a fairly high level of total income. Under these conditions, the total United States production would vary between 330,000,000 bushels in years of low yields and 426,000,000 bushels in years of bumper yields, and would average over a period of years around 373,000,000 bushels. This average production would result in prices to growers that would tend to stabilize acreage at around 3,300,000.

The 1936 Crop is Unusually Small

The October report of the Crop Reporting Board indicated a United States potato crop of about 322,000,000 bushels for 1936 compared with 388,000,000 bushels in 1935, and 372,000,000 the average for 1928-32. The 1936 crop was extremely short in the early, intermediate, and 10 Central late States. The total crop in the 11 early States in 1936 is estimated at 25,896,000 bushels, or about 23 percent less than in 1935. The commercial portion of the early crop was only 4 percent less than in the previous year. In the 7 intermediate States the 1936 total crop is estimated at 26,091,000 bushels, or 25 percent less than in 1935. The commercial portion of the intermediate crop is 15 percent below that for 1935.

The October indication for the 30 late potato States was for a crop of 270,276,000 bushels, or about 15 percent less than in 1935. In the 8 Eastern late States, the 1936 crop is only slightly below average but slightly above 1935. In the 10 Central late States where the shortage of late potatoes occurs, the 1936 crop is about 35 percent less than the relatively large crop of 1935; and 28 percent below average. On the other hand, in the 12 Western States the 1936 crop is about 7 percent above average but about 5 percent below 1935.

Market Outlook for the Remainder of the 1936-37 Season

Prices to growers should be relatively favorable until the middle of 1937. Based on previous surveys and present marketings, it is estimated that the January 1 stocks of potatoes on hand will be approximately 70,000,000 bushels. With average yields, the new commercial crop of potatoes in the 12 early States should total about 23,000,000 bushels, making the prospective available supply for the 6-month period (January to June 1937) approximately 93,000,000 bushels, which compares with the supply of 112,000,000 bushels the previous year and an average of 120,000,000 bushels. It would therefore appear that prices for potatoes can be maintained at favorable levels until the heavy movement from the 1937 production begins late in June or early July.

Probable Production in 1937 about Average

On the basis of an analysis of the relationships existing between annual changes in the United States potato acreage and prices the preceding year and the second year preceding, the acreage planted in 1937 probably will be increased about 2 percent over that planted in 1936. The relatively higher prices being received for the 1936 crop will tend to encourage growers to plant a larger acreage in 1937, but partially counteracting this tendency are the relatively low prices received for the 1935 crop.

If there are average growing conditions in 1937, the slightly increased acreage would produce a United States crop of about 370,000,000 bushels of potatoes. This crop would be only slightly below the 1928-32 average but would be nearly 50,000,000 bushels more than were produced in



1936. It follows, therefore, that if the potato acreage in the next few years were maintained at a level only slightly above that planted in 1936, potato growers could produce on the average enough potatoes for all domestic requirements.

### Outlook by Regions

A summary of reports received in early October from commercial growers in the early and intermediate States indicates that the commercial acreage of potatoes in these areas in 1937 probably will be increased about 18 percent over that harvested in 1936. These reports cover growers' intentions. Therefore, the actual acreage planted in 1937 may be slightly different from present indications.

Growers of commercial potatoes in the first section of early States (Florida and the lower valley of Texas) in 1936 produced about 8 percent more potatoes than in 1935, because of larger yields. But because of an active demand, prices in Florida were considerably higher than in 1935 and growers in the two States together received an average of \$1.45 per bushel, compared with \$1.11 in 1935. The October intentions-to-plant report indicates a 35 percent increase of acreage in Florida for the 1937 season and a 15 percent increase in southern Texas, making a combined gain of 31 percent for these two sections. It is evident that the expected small storage holdings of northern or main-crop potatoes this winter are stimulating the plantings in these early Southern States.

In the second section of the early commercial group (Alabama, California, Georgia, Louisiana, Mississippi, South Carolina, and Texas other) the crop of commercial potatoes in 1936 was one-fourth larger than in 1935, as a result of larger acreage and better yields. Nevertheless, under a continued good demand for new potatoes, growers in this group of States received the high average price of \$1.37 per bushel, compared with only 55 cents in 1935. Stimulated by these favorable returns during the last spring, this group reports an intended increase of 28 percent in commercial acreage for 1937, South Carolina and California showing the largest percentage increases.

A 6 percent reduction of commercial acreage in 1936 and extremely low yields per acre (averaging only 91 bushels) caused the second early States (Arkansas, North Carolina, Oklahoma, and Tennessee) to produce only 4,200,000 bushels of commercial potatoes this year, or 34 percent less than in 1935. Drought and excessive heat seriously affected this crop. As a result of this small production and the cleaning up of old potatoes, particularly favorable prices were received by growers in the second early States, averaging \$1.60 per bushel, or nearly three times the price of 1935. The intentions-to-plant report indicates a decreased acreage in Oklahoma for 1937 but considerable increases in the other 3 States, making a prospective net increase of about 19 percent for this group in 1937.

The first section of intermediate States (Maryland, Norfolk and Eastern Shore sections of Virginia, Kentucky, Missouri, and Kansas) had a relatively small crop of commercial potatoes this summer, caused by a slight reduction of acreage and low yields. Only 8,866,000 bushels were produced, about 21 percent less than in 1935 and 48 percent below the 5-year average. With old potatoes gone from the market, the shortage in these intermediate States and the strong demand for new potatoes resulted in favorable prices to growers. The average price was about \$1.30 per bushel, as against a low price of 40 cents in 1935. Early reports from growers in these States indicate an 8 percent increase of acreage for 1937, mostly in the Norfolk section of Virginia and in Maryland.

The second group of intermediate States (New Jersey and Nebraska) had about the same acreage of commercial potatoes this year as in 1935 but somewhat lower yield per acre. The commercial crop of about 7,500,000 bushels was 5 percent less than that of 1935, but far above average production. The high prices and active demand which had prevailed in earlier States continued into the marketing period of this group and the average price to growers was \$1.11 per bushel, nearly three times the average price for 1935. Both of these States are planning to make a 10 percent increase of acreage in 1937.

In the late States, prices for the 1936-37 marketing season are expected to average much higher than in 1935-36, but it is probable that the acreage planted in 1937 in these (late) States will be increased only slightly. The effect of the higher prices in the 1936-37 season probably will be offset largely by the lower prices received in 1935-36.

Potatoes: Acreage, production, and season average price per bushel received by producers, average 1928-32, and annual 1933-36

| Group                                | : Average :<br>: 1928-32 : | 1933                 | : 1934 :             | 1935                 | : Prelim.<br>: 1936 : |
|--------------------------------------|----------------------------|----------------------|----------------------|----------------------|-----------------------|
| <u>ACREAGE:</u>                      | <u>Acres</u>               | <u>Acres</u>         | <u>Acres</u>         | <u>Acres</u>         | <u>Acres</u>          |
| Early:                               |                            |                      |                      |                      |                       |
| Total.....                           | 390,000                    | 386,000              | 431,000              | 417,000              | 392,000               |
| Commercial.....                      | 158,800                    | 123,600              | 158,600              | 136,200              | 136,300               |
| Other.....                           | 231,200                    | 262,400              | 272,400              | 280,800              | 255,700               |
| Intermediate                         |                            |                      |                      |                      |                       |
| Total.....                           | 340,000                    | 324,000              | 333,000              | 322,000              | 306,000               |
| Commercial.....                      | 143,400                    | 123,400              | 141,200              | 121,200              | 115,900               |
| Other.....                           | 196,600                    | 200,600              | 191,800              | 200,800              | 190,100               |
| 18 Surplus Late States:              |                            |                      |                      |                      |                       |
| Total.....                           | 2,196,000                  | 2,253,000            | 2,355,000            | 2,320,000            | 2,090,000             |
| 3 Eastern.....                       | 620,000                    | 599,000              | 666,000              | 639,000              | 578,000               |
| 5 Central.....                       | 1,055,000                  | 1,124,000            | 1,156,000            | 1,145,000            | 987,000               |
| 10 Western.....                      | 521,000                    | 530,000              | 533,000              | 536,000              | 525,000               |
| 12 Other Late States:                |                            |                      |                      |                      |                       |
| Total.....                           | 401,000                    | 448,000              | 478,000              | 492,000              | 429,000               |
| 30 Late States combined..            | 2,597,000                  | 2,702,000            | 2,833,000            | 2,812,000            | 2,519,000             |
| 37 Late and Intermediate States..... | 2,937,000                  | 3,026,000            | 3,166,000            | 3,134,000            | 2,825,000             |
| U. S. Total.....                     | 3,327,000                  | 3,412,000            | 3,597,000            | 3,551,000            | 3,217,000             |
| <u>PRODUCTION:</u>                   | <u>1,000 bushels</u>       | <u>1,000 bushels</u> | <u>1,000 bushels</u> | <u>1,000 bushels</u> | <u>1,000 bushels</u>  |
| Early:                               |                            |                      |                      |                      |                       |
| Total.....                           | 32,717                     | 28,557               | 36,651               | 33,799               | 25,396                |
| Commercial.....                      | 16,788                     | 13,041               | 19,274               | 14,145               | 13,556                |
| Other.....                           | 15,929                     | 15,516               | 17,377               | 19,654               | 12,340                |
| Intermediate:                        |                            |                      |                      |                      |                       |
| Total.....                           | 33,212                     | 26,618               | 32,279               | 34,992               | 26,091                |
| Commercial.....                      | 22,587                     | 15,232               | 20,035               | 18,656               | 15,992                |
| Other.....                           | 16,625                     | 11,586               | 12,244               | 16,336               | 10,099                |
| 18 Surplus Late States:              |                            |                      |                      |                      |                       |
| Total.....                           | 260,473                    | 253,387              | 291,811              | 272,722              | 233,729               |
| 3 Eastern.....                       | 96,673                     | 95,117               | 126,641              | 92,246               | 92,234                |
| 5 Central.....                       | 90,081                     | 75,688               | 96,017               | 97,665               | 62,585                |
| 10 Western.....                      | 73,719                     | 82,582               | 69,153               | 82,811               | 78,910                |
| 12 Other Late States:                |                            |                      |                      |                      |                       |
| Total.....                           | 39,713                     | 33,544               | 45,364               | 46,165               | 36,547                |
| 30 Late States combined..            | 300,186                    | 286,931              | 337,175              | 318,887              | 270,276               |
| 37 Late and Intermediate States..... | 339,398                    | 313,749              | 363,454              | 353,879              | 296,367               |
| U. S. Total.....                     | 372,115                    | 342,306              | 406,105              | 397,678              | 322,263               |

(continued)

The Potato Outlook - 6 -

Potatoes: Acreage, production, and season average price per bushel received by producers, average 1928-32, and annual 1933-36 (cont'd)

| Group                      | Average :<br>1928-32 : | 1933 :                 | 1934 :  | 1935 :  | Prelim.<br>1936 : |
|----------------------------|------------------------|------------------------|---------|---------|-------------------|
| FARM PRICE per bushel:     | Dollars                | Dollars                | Dollars | Dollars | Dollars           |
| Early:                     |                        |                        |         |         |                   |
| Total.....                 | 1.02                   | .86                    | .68     | .69     |                   |
| Commercial.....            | 1.03                   | .78                    | .66     | .70     | 1.46              |
| Other.....                 | 1.01                   | .93                    | .70     | .69     |                   |
| Intermediate:              |                        |                        |         |         |                   |
| Total.....                 | .50                    | 1.12                   | .55     | .54     |                   |
| Commercial.....            | .72                    | 1.25                   | .46     | .40     | 1.21              |
| Other.....                 | .91                    | .94                    | .69     | .69     |                   |
| 18 Surplus late States.... | .65                    | .74                    | .38     | .58     |                   |
| 12 Other late States.....  | .89                    | 1.12                   | .65     | .69     |                   |
| 30 Late States combined... | .65                    | .79                    | .41     | .59     |                   |
| 37 Late & intermediate.... | .65                    | .82                    | .42     | .59     |                   |
| U. S. average.....         | .71                    | .82                    | .45     | .60     |                   |
| <hr/>                      |                        |                        |         |         |                   |
| 11 Early States            | 7 Intermediate States  | 18 Surplus Late States |         |         | 12 Other Late     |
|                            |                        | Eastern                | Central | Western |                   |
| N. Carolina                | New Jersey             | Maine                  | Mich.   | Nebr.   | New Hampshire     |
| S. Carolina                | Delaware               | New York               | Wisc.   | Mont.   | Vermont           |
| Georgia                    | Maryland               | Pa.                    | Minn.   | Idaho   | Massachusetts     |
| Florida                    | Virginia               |                        | N. Dak. | Wy.     | Rhode Island      |
| Tennessee                  | Kentucky               |                        | S. Dak. | Colo.   | Connecticut       |
| Alabama                    | Missouri               |                        |         | Utah    | West Virginia     |
| Mississippi                | Kansas                 |                        |         | Nev.    | Ohio              |
| Arkansas                   |                        |                        |         | Wash.   | Indiana           |
| Louisiana                  |                        |                        |         | Oreg.   | Illinois          |
| Oklahoma                   |                        |                        |         | Calif.  | Iowa              |
| Texas                      |                        |                        |         |         | New Mexico        |
|                            |                        |                        |         |         | Arizona           |



## THE OUTLOOK FOR SWEETPOTATOES FOR 1937

### Summary

Sweetpotato acreage in 1937 probably will be about 4 percent less than the 890,000 acres harvested the previous year. With average yields, the production from this acreage would be approximately 12 percent greater in 1937 than in 1936. With no change in demand, this increased production would result in prices paid to growers that would average somewhat less than the prices received in 1936, but it is expected that this tendency toward lower prices will be counteracted to a considerable extent by an increase in consumer buying power.

The price to growers on September 15, 1936, averaged \$1.02 per bushel compared with \$0.74 on the same date in 1935. With a small crop of Irish potatoes in 1936, and a large part of the present sweetpotato marketing season still ahead, it is probable that prices for sweetpotatoes will strengthen further.

### The 1936 Crop

Sweetpotato acreage in 1936 declined about 8 percent from the acreage harvested in 1935. There was no decrease in acreage in the commercial States of New Jersey, Delaware, Maryland, and Virginia, but in the South Central States, where the bulk of the production is for home consumption, there was a decrease of 10 percent from last year's acreage.

For the country as a whole, production in 1936 was about equal to the 5-year (1928-32) average but 19 percent below the large crop harvested in 1935. Yield per acre in 1936 is expected to be slightly below average due to prolonged hot weather and lack of rainfall in the South Central States.

### Regional Outlook

The major part of the country's sweetpotato crop is grown in the southern cotton States, where it is chiefly used as food on the farm where grown. In the past, this farm acreage has varied with the returns from the previous year's cotton crop, the acreage being reduced after a year of improvement in cotton prices and increased after a year of low cotton prices. For 1937, this relationship indicates a decrease in acreage. However, the substantial improvement in sweetpotato prices in 1936 probably will offset this tendency to some extent, even in the cotton States. Also, a few areas in these States, the most important being located in Louisiana where carlot shipments have doubled during the past five years, have recently increased their production for market.

In the Middle Atlantic States, Kentucky, and Tennessee, where sweetpotatoes are produced chiefly for market (approximately 60 percent of the total carlot shipments of sweetpotatoes originate in these States), the 1937 acreage probably will be increased about 10 percent above the 150,000 acres harvested in 1936. This increase is expected because of favorable prices received for the 1936 crop.

## Sweetpotatoes, #2

In some areas, such as the Eastern Shore of Virginia, where sweetpotatoes are commonly grown on the same farm with Irish potatoes, the acreage of sweetpotatoes may be decreased slightly because of increased plantings of Irish potatoes.

The following table shows the acreage, production, price, and farm value of the sweetpotato crop from 1924 to 1936, inclusive:

| Sweetpotatoes |                    |                      |                  |                      |  |
|---------------|--------------------|----------------------|------------------|----------------------|--|
| Year          | Acres              | Production           | Price per bushel | Farm value           |  |
|               | <u>1,000 acres</u> | <u>1,000 bushels</u> | <u>Cents</u>     | <u>1,000 dollars</u> |  |
| 1924          | 564                | 44,884               | 149.6            | 67,137               |  |
| 1925          | 636                | 50,139               | 165.1            | 82,757               |  |
| 1926          | 645                | 63,300               | 117.4            | 74,305               |  |
| 1927          | 724                | 70,897               | 109.0            | 77,301               |  |
| 1928          | 636                | 59,178               | 118.0            | 69,814               |  |
| 1929          | 646                | 64,963               | 117.1            | 76,081               |  |
| 1930          | 669                | 54,415               | 108.2            | 58,879               |  |
| 1931          | 850                | 66,843               | 72.7             | 48,567               |  |
| 1932          | 1,056              | 86,436               | 54.2             | 46,862               |  |
| 1933          | 908                | 75,248               | 69.5             | 52,269               |  |
| 1934          | 958                | 77,482               | 79.8             | 61,805               |  |
| 1935          | 970                | 83,198               | 70.4             | 58,555               |  |
| 1936 *        | 890                | 67,520               | 99.0             | 66,845               |  |

\* Preliminary estimates.

## THE OUTLOOK FOR TRUCK CROPS FOR MARKET FOR 1937

### Summary

Production of commercial truck crops for fresh market shipment in 1937 probably will be larger than the record high volume in 1936. In general, the increase probably will be due largely to an increase in acreage ranging from 5 to 10 percent. A rise of about 10 percent in the general level of vegetable prices in 1936 is expected to bring about this increase in acreage. All sections of the country and all of the important truck crops, except celery, onions, and spinach, are likely to show an increased production in 1937. Ordinarily increases in production force prices to lower levels, but in 1937 it is expected that further improvement in consumer buying power will about offset the effects of increased supplies and maintain prices at about the same level as in 1936. If yields per acre in 1937, however, should be generally higher than average, it is probable that production would be so large that prices would average lower than in 1936. Food prices are slightly higher than they were in the fall of 1935. This is a favorable factor in the competitive position of fresh vegetables during the first half of 1937. Also the commercial supply of late cabbage, potatoes, and sweetpotatoes is relatively short and the reduced carry-over into the winter months of the stored parts of these crops is expected to improve the market situation for winter and spring vegetables. The total supply of canned vegetables is also less than it was a year ago.

There was an increase of about 6 percent in the vegetable acreage harvested for market in 1936 over 1935, and yield per acre was up about 1 percent, so production was increased by 7 percent. This was a record high for acreage and production, and indicates that the sharp upward trend occurring in the last 15 years is continuing. Although commercial production was larger in 1936, prices for vegetables in general advanced about 10 percent. This advance is attributed to the fact that consumer buying power increased over 1935 and the fact that the drought cut short the production of home and local garden crops in the Central States, and created a larger market for commercial truck crops than usual.

The reports received to date from Florida, Texas, Arizona, California, and a few other early sections indicate that the combined acreage of vegetables for harvest in the late fall and winter of 1936-37 will be about 40 percent larger than that harvested in these States in 1935-36 and 86 percent above the average of 1928-32. The acreage planted to these vegetables, however, is small relative to the total United States vegetable acreage. In the fall of 1935 the early indications were for a 40-percent increase in acreage, but because of unfavorable weather conditions only about two-thirds of the planted acreage reached maturity; consequently the harvested acreage was about 7 percent less than in 1934. If favorable weather prevails in the 1936-37 season, therefore, a much larger volume of fall and winter vegetables will be harvested than in corresponding periods in the past.

### Acresage and Production Higher

During the 1936 season the total production of 17 vegetables for fresh market shipment increased nearly 7 percent above the relatively large production of 1935 and was the largest on record. It exceeded the previous large crop of 1932 by nearly 5 percent, and it appears that the upward trend which has been in evidence for the last 15 years is continuing.

The increase in production of these vegetables this year was due almost entirely to an increase in acresage, as the combined yield per acre was only 1 percent higher than in 1935. The total acresage planted to these 17 important vegetables for fresh market shipment in 1936 was about 6 percent larger than in 1935, and about 4 percent larger than in 1932, the previous high record acresage. During the last 15 years the trend of the acresage of these vegetables has been sharply upward, the only major reversal occurring in 1933 after the disastrously low prices of 1932. From 1923 to 1932 the average rate of expansion was about 7 percent per year. There was a 10-percent reduction in 1933, and an average increase of about 5 percent in the last 3 years. In view of these increases and a 10-percent advance in vegetable prices in 1936, together with prospects for further improvement in demand, it seems probable that the acresage of the 17 important vegetables will be increased from 5 to 10 percent in 1937. The increase is expected to be fairly general throughout the country and fairly general with respect to kinds of vegetables. Because the prices received for celery, onions, and spinach were lower in 1936 than in 1935 it is probable that the acresage of these three vegetables will not be increased in 1937.

The preliminary estimates point to a total of 1,548,000 acres in 1936, compared with 1,462,000 acres in 1935 and 1,319,000 acres the 1928-32 average. The acresage in the North Atlantic Coast States increased 3 percent over 1935; in the South Central States, 23 percent; and in the Western States the increase over 1935 was 8 percent. The acresage in the South Atlantic Coast States decreased 2 percent, while in the North Central States the decrease was 10 percent. The decreases in these two regions were due mainly to poor growing conditions caused by the drought.

Yields per acre of 17 commercial truck crops for fresh market shipment were about 1 percent higher in 1936 than in 1935 and the average of the last 5 years. Owing to the sharp increase in acresage into lower yielding areas, the trend of yield per acre of all these vegetable crops combined for the United States as a whole was downward during the decade ended with 1931. The general level declined about 16 percent during that time, but since 1931 yields have remained at a stable level. The variation has not exceeded 3 percent in any recent year.

### Prices Continue toward Recovery

Vegetable prices advanced nearly 10 percent in 1936 over 1935 and were the highest since 1930. The 1936 season marks the fourth successive year of price advance since the low point reached in 1932. Vegetable prices in 1936 were about 30 percent higher than they were 4 years ago. Although the total supply of vegetables in 1937 probably will be greater than in 1936, prices are expected to remain at about the level of 1936. Because of further improvement in consumer buying power in 1937, it is expected that larger quantities of vegetables will be marketed at about the same level of prices prevailing in 1936.



The average value per acre of vegetables for fresh market shipment rose to about \$127 per acre in 1936 from \$116 in 1935. Since yield per acre of these vegetables has not varied much in the last 5 years, the average value per acre has fluctuated with vegetable prices. In 1936 value per acre was also the highest since 1930 and about one-third higher than in 1932, the depression low point. Since 1932 there has been improvement in the money return per acre, but it is still considerably below the level of \$175 per acre obtained before the depression. If yields per acre held to the level of recent years, and there is continued improvement in prices, the higher levels of per-acre value may again be a common occurrence.

#### Foreign Trade

The total exports of vegetable products from the United States in 1935-36 (July to June) were valued at \$11,463,000 compared with \$8,994,000 in 1934-35. Out of the total exports in 1935-36, 50 percent were fresh vegetables, 4 percent dried, and 46 percent canned and preserved vegetables. Exports of fresh vegetables were valued at \$5,745,000 compared with \$4,223,000 in 1934-35, an increase of \$1,522,000. Exports of canned and preserved vegetables were valued at \$5,258,000, or an increase of \$889,000 over the 1934-35 value of \$4,369,000. Exports of dried vegetables were worth \$465,000 compared with \$402,000 in 1934-35.

Imports of fresh, dried, and canned vegetables in 1935-36 (July to June) amounted to \$11,894,104 compared with \$12,500,134 in 1934-35, or a decrease of \$472,000. Imports of vegetables were divided about as follows in 1935-36: 44 percent fresh and root vegetables, 14 percent dried vegetables, 42 percent canned vegetables. Imports of green vegetables were valued at \$3,383,925 compared with \$3,244,600 in 1934-35. The outstanding item was fresh tomatoes, valued at \$1,996,000. Imports of root vegetables were worth \$1,852,000 against \$1,485,000 in 1934-35. With the exception of dried onions, all items in this group (which also includes garlic, potatoes, and turnips and rutabagas) were larger than last year. Imports of dried vegetables such as beans, peas, and lentils amounted to \$1,677,000 compared with \$2,160,114 in 1934-35. Imports of canned and preserved vegetables were also smaller, amounting to \$4,981,000 against \$5,476,000 in the previous year.

The outlook for the exports of vegetables from the United States is somewhat more favorable for the 1936-37 season than in 1935-36. Demand conditions in many foreign countries are better than at this time in 1935, and the reduced duties in many countries that have been brought about by the trade agreements program should improve the export trade. Exports of fresh vegetables in particular will probably be larger, since under the terms of the trade agreement with Canada, which is the most important outlet, fresh vegetables have benefited substantially. Sweetpotatoes, eggplant, and artichokes are now on the free list in Canada; on most of the other fresh vegetables the basic ad valorem rate has been reduced 50 percent; and the minimum specific duties hitherto applicable during the season when vegetables from the United States compete with Canadian vegetables have been cancelled, except on tomatoes. Still more important is the adjustment made with respect to valuation advances during the competitive season: on a number of vegetables, including tomatoes, the system has been cancelled entirely; on about a score of vegetables Canada has reserved the right to apply the valuations, but the agreement provides that the additions to the invoice values will be at least 20 percent lower than in past years.

Although the concessions secured under the Canadian agreement are of the most value to vegetables, important concessions were secured from a number of other countries. In addition to Canada, reductions in duties on fresh and dried vegetables were secured from Colombia, Cuba, and Haiti. Nine countries granted reductions in duties on various canned vegetables, and 4 countries agreed to bind existing duties against increases during the life of the agreements. Especially valuable concessions have been secured for canned asparagus, the most important canned vegetable export.

Imports of winter vegetables may be somewhat larger during the 1936-37 season than in 1935-36. Plantings in Cuba are larger than in 1935, and indications are that plantings on the West Coast of Mexico will be slightly heavier than in 1935.

The outlook for truck crops for market - 5.

Index numbers relating to vegetable crops, 1919-1936  
17 vegetables for fresh market shipment 1/  
(1924-1929 = 100)

| Year                   | Acreage | Yield | Value :<br>per :<br>: acre : | Production | Price | Farm<br>value |
|------------------------|---------|-------|------------------------------|------------|-------|---------------|
| 1919 .....             | 53.2    | 106.8 | 129.7                        | 56.8       | 122.2 | 69.4          |
| 1920 .....             | 63.1    | 116.4 | 119.4                        | 73.5       | 106.7 | 75.8          |
| 1921 .....             | 58.8    | 105.3 | 121.8                        | 61.9       | 115.4 | 72.0          |
| 1922.....              | 78.2    | 102.6 | 114.5                        | 80.2       | 113.8 | 90.1          |
| 1923.....              | 71.2    | 107.9 | 139.8                        | 76.8       | 127.7 | 100.1         |
| 1924.....              | 85.6    | 103.6 | 106.5                        | 88.7       | 103.1 | 91.8          |
| 1925.....              | 88.8    | 106.1 | 111.1                        | 94.2       | 104.1 | 99.2          |
| 1926.....              | 96.5    | 98.2  | 98.2                         | 94.8       | 100.3 | 95.4          |
| 1927.....              | 104.7   | 101.4 | 92.9                         | 106.1      | 92.6  | 97.9          |
| 1928.....              | 108.6   | 94.1  | 96.9                         | 101.8      | 103.5 | 105.8         |
| 1929.....              | 115.9   | 98.4  | 94.2                         | 113.7      | 97.0  | 110.0         |
| 1930.....              | 126.4   | 91.7  | 77.7                         | 117.8      | 86.9  | 100.4         |
| 1931.....              | 132.3   | 87.9  | 64.1                         | 116.4      | 73.7  | 85.4          |
| 1932.....              | 134.9   | 88.4  | 51.8                         | 119.2      | 61.2  | 70.3          |
| 1933.....              | 122.7   | 87.1  | 54.5                         | 106.8      | 65.2  | 67.3          |
| 1934.....              | 130.1   | 90.1  | 56.2                         | 117.2      | 67.2  | 76.2          |
| 1935.....              | 132.5   | 88.4  | 63.1                         | 117.1      | 72.8  | 84.1          |
| 1936.. <u>2/</u> ..... | 140.3   | 89.0  | 71.1                         | 124.9      | 79.8  | 99.8          |

1/ Includes asparagus, snap beans, beets, cabbage, carrots, cauliflower, celery, cucumbers, eggplant, lettuce, onions, peas, peppers, spinach, tomatoes, cantaloupes, and watermelons.

2/ Preliminary





## THE CABBAGE OUTLOOK FOR 1937

### Summary

An increase in the total acreage planted to cabbage in 1937 over that planted in 1936 is in prospect. This larger acreage together with average yields would produce a commercial crop considerably larger than in 1936. Increased buying power is expected to strengthen the demand for cabbage in 1937, but the larger crop, particularly in the intermediate and late States, probably will force cabbage prices to levels lower than in 1936.

The acreage in the early and second early States in 1937 probably will be slightly smaller than in 1936. Because of the relatively high prices received by growers in the intermediate and late States in 1936, it is probable that the 1937 acreage planted in these areas will be expanded to the extent that with average yields, production will exceed market requirements.

The total United States commercial acreage of cabbage for fresh market shipment and kraut manufacture in 1936 was 156,610 acres, or 13 percent more than in 1935, but 11 percent below the record high acreage of 1934. The increase over 1935 was due almost entirely to the large plantings in the early States. The average yield per acre for the country as a whole was one of the lowest on record, which fact offset the larger acreage to such an extent that the October 1 estimate of 877,600 tons produced was 5 percent less than the crop of 1935, and about 29 percent below the record high production of 1934. Prices to growers as a whole averaged about \$20.66 per ton through September, compared with a season price of \$13.24 in 1935, and about \$16.00 per ton for 1928-32.

### Outlook by Regions

The early States (California, Florida, Louisiana, and Texas) had a very light crop of cabbage in 1935, as a result of severe freezes. High prices were received that year. Acreage was more than doubled in 1936, totaling 56,000 acres. These four States produced a large crop of 290,450 tons for fresh market shipment, besides some 5,000 tons in Texas used for kraut manufacture. The early cabbage crop in 1936 was more than twice as large as the small 1935 crop. In consequence of the relatively low average price of about \$12.00 per ton to growers, compared with \$27.22 in 1935 it would appear that growers in the early States will reduce their plantings for the 1937 season. On the other hand, the supply of late cabbage that is expected to be available in the early part of 1937 is relatively small and this fact may offset to some extent the tendency of growers to reduce their acreages in the early States.

## Cabbage - 2.

The acreage in the second-early States (Alabama, Georgia, Mississippi, North Carolina, South Carolina, the Norfolk section and Eastern Shore of Virginia), in 1936, 15,800 acres was the largest acreage on record. Because of reduced yields, however, production was a little below that of 1935, or about 83,500 tons, compared with an average crop of 78,800 tons. The extremely large crop just preceding in the early States had depressed market prices so much that growers in the second-early States received an average of only \$12.50 per ton in 1936, as against \$31.69 in 1935. The effect of these low prices probably will be to curtail the plantings in 1937.

The acreage of cabbage planted in the intermediate States (Arkansas, Illinois, Iowa, Kentucky, Maryland, Missouri, New Jersey, New Mexico, the Long Island section of New York, southeastern Ohio, Tennessee, southwestern Virginia, and Washington) is usually about the same each year. Producers in this group of States, who market their crop between the early and late cabbage seasons, are obliged to meet considerable competition from summer vegetables and produce from local gardens. The average price to cabbage growers in the intermediate States dropped to \$13.63 per ton in 1935, so that plantings were reduced 10 percent in 1936 to about 21,870 acres. Drought and excessive heat damaged the crop to the extent that only about 4-1/2 tons per acre were harvested. As a result a very light crop of 101,300 tons was produced in 1936. This was 34 percent below the 1935 production and the average crop, and was the smallest crop in recent years for this group of States. In consequence, the average price to growers rose to a new high of \$41.42 per ton. These higher prices can be expected to stimulate plantings of intermediate cabbage in 1937. It may be noted that the small 1936 crop and consequent higher prices were chiefly the result of low yields, and therefore it is indicated that any material increase of acreage in the intermediate States probably would cause considerably lower prices than in 1936.

In the late States (Colorado, Indiana, Michigan, Minnesota, New York, Ohio, Oregon, Pennsylvania, Utah and Wisconsin) only slightly more domestic-type cabbage is produced for fresh market shipment than is produced for kraut manufacture. After increasing their total acreage of domestic cabbage to a peak of 40,150 acres in 1934, growers made a slight reduction in 1935 and sharply reduced their plantings in 1936. A very low average price of \$7.74 per ton was received from their record-breaking crop of 1934 and only \$6.34 per ton from the large crop of 1935. Consequently, only 30,450 acres were planted to domestic-type cabbage this year compared with 37,530 acres in 1935. With yields averaging only 6 tons per acre (or about one-third below the 5-year average), production dropped to the low figure of 183,500 tons for market and kraut combined, as compared with 308,300 tons in 1935. Prices have been high throughout the fall months and total returns to growers in these States should compare favorably with those of 1933, when the domestic-type cabbage crop also was short. The farm price to date has averaged around \$23.36 per ton, compared with the 5-year average of \$9.54 per ton. Because of the higher prices in 1936, it is expected that the acreage planted in 1937 will be increased materially.

Cabbage - 3.

Danish-type cabbage plantings in 1936 in the late States (all States except Oregon and Utah in the list above) were reduced about one-seventh below those of a year ago to a total of 30,570 acres, most of which is intended for fresh market shipment. The 1936 acreage is about 12 percent less than the average. This type of cabbage, produced mainly for winter storage purposes, was not damaged so severely by adverse weather conditions, and yields are expected to average about 6.7 tons per acre. On the basis of October 1 condition, the crop is indicated to be 204,100 tons, or 18 percent less than the 1935 crop of Danish-type cabbage. With demand good, returns to growers are expected to average around \$21.15 per ton, as against \$8.80 last year. On the basis of the higher prices in 1936, it is expected that the acreage in 1937 will be increased materially.

## Cabbage - 4.

Cabbage for market and kraut: Commercial acreage, production, and season average price received by producers, by groups of States, average 1928-32, and annual 1933-36

| Item and group            | :Average :<br>:1928-32 : 1933 : 1934 : 1935 : Prelim.<br>: 1936 |
|---------------------------|---|
|                           | : Acres : Acres : Acres : Acres : Acres                         |
| <u>ACREAGE</u>            |   |
| Fall                      | : 810 : 1,300 : 1,000 : 1,400 : 1,920                           |
| Early                     | : 36,910 : 30,900 : 58,550 : 25,350 : 56,000                    |
| Second early              | : 13,440 : 13,800 : 15,400 : 14,900 : 15,800                    |
| Intermediate              | : 22,820 : 22,760 : 24,280 : 24,430 : 21,870                    |
| Late, domestic            | : 35,130 : 29,010 : 40,150 : 37,530 : 30,450                    |
| Late, Danish              | : 34,630 : 27,600 : 37,350 : 35,420 : 30,570                    |
| Late, total               | : 69,760 : 56,610 : 77,500 : 72,950 : 61,020                    |
| U. S. total               | : 143,740 : 125,370 : 176,730 : 139,030 : 156,610               |
| For kraut                 | : 20,240 : 16,440 : 25,710 : 16,500 : 17,990                    |
| For market                | : 123,500 : 108,930 : 151,020 : 122,530 : 138,620               |
|                           | : Sh. tons : Sh. tons : Sh. tons : Sh. tons : Sh. tons          |
| <u>PRODUCTION</u>         |   |
| Fall                      | : 5,900 : 5,400 : 7,600 : 10,800 : 9,500                        |
| Early                     | : 208,900* : 149,600* : 326,000* : 126,400 : 295,700*           |
| Second early              | : 78,800* : 64,600 : 82,300* : 84,000* : 83,500*                |
| Intermediate              | : 153,300* : 127,400 : 134,100 : 152,800* : 101,300             |
| Late, domestic            | : 288,500* : 181,600 : 339,000 : 308,300 : 183,500              |
| Late, Danish              | : 275,000* : 199,100 : 341,400 : 249,500 : 204,100              |
| Late, total               | : 563,500* : 380,700 : 680,400 : 557,800 : 387,600              |
| U. S. total               | : 1,010,400* : 727,700* : 1,230,400* : 931,800* : 877,600*      |
| For kraut                 | : 165,700 : 95,400 : 215,700 : 134,800 : 94,700                 |
| For market                | : 844,700* : 632,300* : 1,014,700* : 797,000* : 782,900*        |
|                           | : Dollars : Dollars : Dollars : Dollars : Dollars               |
| <u>FARM PRICE PER TON</u> |   |
| Fall                      | : 42.20 : 11.11 : 30.13 : 20.19 : 28.11                         |
| Early                     | : 24.61 : 13.40 : 9.65 : 27.22 : 11.95                          |
| Second early              | : 33.49 : 26.18 : 7.92 : 31.69 : 12.48                          |
| Intermediate              | : 18.91 : 22.38 : 15.18 : 13.63 : 41.42                         |
| Late, domestic            | : 9.54 : 14.78 : 7.74 : 6.34 : 23.36                            |
| Late, Danish              | : 11.99 : 16.87 : 5.81 : 8.80 : 21.15                           |
| Late, total               | : 10.57 : 15.87 : 6.77 : 7.44 : 22.20                           |
| U. S. average             | : 16.16 : 17.42 : 8.59 : 13.24 : 20.66                          |
| For kraut                 | : 7.53 : 11.21 : 6.35 : 5.13 :                                  |
| For market                | : 17.96 : 18.37 : 9.13 : 14.64 :                                |

\* Includes quantities not harvested because of market conditions.



## THE TOMATO OUTLOOK FOR 1937

### Summary

The prospects are for slightly increased plantings and production of tomatoes for fresh market shipment in 1937 for the country as a whole. The increased acreage is indicated by the relatively higher prices received for the record large crop in 1936, and by the fact that the trend of tomato production and consumption has been upward in recent years. The acreage planted in 1937 probably will be increased over that harvested in 1936 in all of the important commercial areas, except the second early group and the southern district of California. Growers in both of these areas did not share in the higher returns received in the other areas. In Cuba and Mexico the production of tomatoes for the winter market is expected to be as large or larger than in 1935.

In spite of the relatively low prices received for tomatoes in 1935, growers planted a record high acreage in 1936. It was 8 percent larger than the 1935 acreage and 23 percent larger than the average for the 5-year period 1928-32. The largest crop on record was produced. It was nearly 5 percent larger than the 1935 crop and was 19 percent above the average for the recent period. In spite of the record production, the preliminary estimates indicate prices for the country as a whole will average about \$1.38 per bushel as compared with \$1.19 in 1935.

Total production was increased in 1936 over that in 1935 in all of the regional groups of States except in south Florida where there was a substantial reduction because of continued heavy rains during the growing season. The increase in production was most marked in the second section of the early group of States where acreage was increased about 50 percent and production was about 66 percent larger than in 1935. Prices received by the growers were higher in 1936 than in 1935 in all of the regional groups except the second early where the prices averaged about the same as in 1935, and in the southern district of California where it is estimated that the price this fall will decline about 10 percent.

### Fall and Early States

Slightly higher prices received in 1935 for the fall crop of tomatoes in Florida and Texas probably will result in some increase of acreage for the fall and winter of 1936-37. The acreage planted in the fall of 1935 for shipment to market during the following autumn and winter months was 16 percent less than for the preceding year. But under the stimulus of more favorable growing conditions, the largest crop on record was produced. It was about 36 percent greater than production in 1935 and more than double the average production for the 5-year period. In spite of this record crop, prices to growers averaged \$2.19 per bushel or about 8 percent higher than in 1935. Prices were higher in 1936 for a record crop and the general trend of acreage in these early areas has been sharply upward. It is very probable that growers will expand their acreage in the fall of 1936.

## Tomatoes - 2.

Substantially higher prices received for the spring crop of tomatoes in south Florida is likely to bring considerable expansion of acreage in that area for the 1937 season. The spring crop acreage in south Florida was about 8 percent less than the acreage in 1935 but damage by continued heavy rains in some sections reduced total production to about one-half that of the preceding year. As a result of the short crop, the average price to producers advanced to \$3.50 per bushel and was the highest price received since 1928.

In Florida, "other" the lower valley of Texas, and the Imperial Valley of California, prices received by growers for the 1936 crop averaged somewhat higher than for the preceding year which may mean some increased acreage in 1937 for this group of States as a whole. The acreage of spring grown tomatoes in these areas was approximately 50 percent larger and total production was about 66 percent more in 1936 than in 1935. The average price received by growers was approximately 16 percent more than in 1935 and indicates that the acreage for areas as a whole, may be increased slightly in 1937.

### Foreign

The successful production and marketing during 1935-36 of one of the largest winter vegetable crops ever grown in Cuba, has served to stimulate increased interest in such crops this year, according to the American Consul at Habana. Favorable conditions so far have facilitated preparation of the soil and planting of crops. Transplanting of tomatoes from seed beds to fields began about the middle of September. About twice as much seed was planted as in 1935 but heavy rains brought a loss of about 40 percent of the plants. Many growers had hoped to have tomatoes ready for export early in November. The early crop, which is now expected to be harvested between November 15 and February 15, will be substantially larger than last fall, barring unfavorable growing conditions. Although a considerable quantity of tomatoes will probably be unable to meet the export standards of quality required by the Cuban Government, exports to American markets are expected to show an increase again this season. Exports of tomatoes to the United States totaled 1,319,000 lugs of 32 pounds net in the 1935-36 season. Planting of tomatoes has started in Mexico but no definite information is available as to the acreage that will be planted. Indications are that plantings will be as large as last season when exports of tomatoes to the United States and Canada amounted to around 945,000 bushels.

### Second Early States

Prices received by growers of tomatoes in the second early States (Georgia, Louisiana, Mississippi, South Carolina, and other Texas) were practically the same in 1936 as in 1935 and very little change in acreage is anticipated for this group of States in 1937. The acreage, and production as well, totaled approximately the same in 1936 as in 1935 in the second early group of States.

Tomatoes - 3.

#### Intermediate States

Growers in the intermediate States (North Carolina, Virginia, Maryland, New Jersey, Ohio, southern Illinois, Tennessee, Arkansas, Missouri, and parts of California) reported substantially higher prices for tomatoes in 1936 than were received in 1935. As a consequence there probably will be further acreage expansion in this group of States in 1937. In spite of the record crop produced in 1935 and comparatively low prices received, this group of States increased their plantings 5 percent in 1936. Production in 1936 averaged about 3 percent more than in 1935 and nearly 40 percent above the average of recent years. The average price of \$1.00 per bushel received by the growers in this group of States in 1936 was approximately one-third higher than for the 1935 crop.

#### Late States

Preliminary reports from the 14 late States indicate the largest crop on record and slightly higher prices than were received for the 1935 crop. As a result of more favorable returns growers may increase their plantings somewhat in 1937. The record acreage planted in 1936 was about 6 percent more than in 1935 and 27 percent more than the average plantings for the 5 years, 1928-32. Total production reported on October 10 was about 4 percent more than in 1935 and about 22 percent more than for 1928-32. The estimated price of 92 cents per bushel received for the crop represents an increase of 13 percent over the 1935 price.

It is estimated that prices received for tomatoes in the southern district of California, which produces late tomatoes for the fall market, will average considerably less than in 1935. Owing to the less favorable returns received this fall it is expected that growers in southern California will reduce their plantings slightly in 1937. The acreage in 1936 was about 8 percent larger than the 1935 acreage but about 20 percent less than the average acreage for recent years. Production, however, is estimated to be 18 percent more than in 1935 and it is expected that the price will be about \$1.65 per bushel as compared with \$1.80 per bushel received in 1935.



Tomatoes - 4.

Acreage, production, and farm price of tomatoes for market

| Item                   | Acreage   |   |           |           |           |
|------------------------|-----------|---|-----------|-----------|-----------|
|                        | : 5-year  | : | :         | :         | :         |
|                        | : average | : | : 1933    | : 1934    | : 1935    |
|                        | : 1928-32 | : | :         | :         | : 1936    |
|                        | : Acres   | : | : Acres   | : Acres   | : Acres   |
| Fall <u>1/</u>         | : 4,010   | : | : 6,100   | : 4,300   | : 8,500   |
| Early (1) <u>2/</u>    | : 10,990  | : | : 12,900  | : 12,000  | : 12,000  |
| Early (2) <u>3/</u>    | : 26,600  | : | : 25,400  | : 23,400  | : 22,000  |
| Second early <u>4/</u> | : 34,220  | : | : 34,000  | : 40,700  | : 39,650  |
| Intermediate <u>5/</u> | : 35,960  | : | : 37,210  | : 41,410  | : 46,130  |
| Late (1) <u>6/</u>     | : 29,320  | : | : 31,970  | : 33,550  | : 35,250  |
| Late (2) <u>7/</u>     | : 9,560   | : | : 6,850   | : 7,250   | : 7,100   |
| Total, all States      | : 150,660 | : | : 154,430 | : 162,610 | : 170,630 |
|                        |           | : |           |           | : 185,050 |

|                        | Production |   |           |           |           |
|------------------------|------------|---|-----------|-----------|-----------|
|                        | : 1,000    | : | : 1,000   | : 1,000   | : 1,000   |
|                        | : bushels  | : | : bushels | : bushels | : bushels |
| Fall <u>1/</u>         | : 256      | : | : 250     | : 334     | : 429     |
| Early (1) <u>2/</u>    | : 1,218    | : | : 1,703   | : 2,040   | : 1,824   |
| Early (2) <u>3/</u>    | : 2,036    | : | : 1,705   | : 1,566   | : 1,524   |
| Second early <u>4/</u> | : 3,498    | : | : 2,666   | : 4,160   | : 3,060   |
| Intermediate <u>5/</u> | : 4,817    | : | : 4,494   | : 4,874   | : 6,522   |
| Late (1) <u>6/</u>     | : 4,206    | : | : 4,582   | : 4,301   | : 4,908   |
| Late (2) <u>7/</u>     | : 860      | : | : 733     | : 1,044   | : 909     |
| Total, all States      | : 16,891   | : | : 16,133  | : 18,319  | : 19,176  |
|                        |            | : |           |           | : 20,046  |

|                        | Farm price per bushel |   |           |           |           |
|------------------------|-----------------------|---|-----------|-----------|-----------|
|                        | : Dollars             | : | : Dollars | : Dollars | : Dollars |
|                        | :                     | : | :         | :         | :         |
| Fall <u>1/</u>         | : 2.56                | : | : 2.17    | : 2.19    | : 2.02    |
| Early (1) <u>2/</u>    | : 2.89                | : | : 1.80    | : 2.60    | : 2.40    |
| Early (2) <u>3/</u>    | : 2.52                | : | : 1.56    | : 2.39    | : 2.04    |
| Second early <u>4/</u> | : 1.47                | : | : 1.52    | : .82     | : 1.24    |
| Intermediate <u>5/</u> | : 1.05                | : | : .85     | : .92     | : .76     |
| Late (1) <u>6/</u>     | : .98                 | : | : .69     | : .82     | : .81     |
| Late (2) <u>7/</u>     | : 1.58                | : | : 1.42    | : 1.62    | : 1.80    |
| Total, all States      | : 1.47                | : | : 1.14    | : 1.28    | : 1.19    |
|                        |                       | : |           |           | : 1.38    |

- 1/ Florida, Texas (acreage planted fall of previous year).
- 2/ Florida (south)
- 3/ California (Imperial Valley), Florida (other), Texas (lower valley)
- 4/ Georgia, Louisiana, Mississippi, South Carolina, Texas (other)
- 5/ Arkansas, California, Illinois (Union county), Maryland, Missouri, New Jersey, North Carolina, Ohio (southeast), Tennessee, Virginia.
- 6/ California (north district), Colorado, Delaware, Illinois (other), Indiana, Iowa, Kentucky, Michigan, New York, Ohio (other), Oregon, Pennsylvania, Utah, and Washington.
- 7/ California (south district)



## THE ONION OUTLOOK FOR 1937

### Summary

The 1937 onion crop in the United States probably will be smaller than the record large crop produced in 1936. Because of this smaller crop together with increasing consumer buying power, onion growers may expect generally higher prices and incomes in 1937. It is expected that the acreage will be decreased in all of the commercial areas.

Yields above average in the important late producing regions, together with an increase in the total number of acres planted in the country as a whole accounted for the exceptionally large crop of 1936. On the basis of October 1 conditions, the total 1936 crop of onions was forecast at 17,625,000 sacks (100 pounds) compared with 14,546,000 in 1935. The average price to growers in 1936 in the early States was 76 cents per 100 pound sack, compared with \$2.72 the previous year. The 1936 average price to growers in the intermediate States averaged 88 cents per 100 pounds and compares with \$1.38 in 1935. Growers in the late group of States had not done quite so well in 1935, and plantings in 1936 were reduced slightly. The October forecast indicated production for the entire group of late States of 11,964,000 sacks compared with 10,172,000 sacks in 1935. Prices to growers in the fall of 1936 were about 50 percent lower than in 1935.

### Outlook by Regions

A 1936 crop of Bermuda type onions 78 percent larger than in 1935, resulted in disastrously low prices to producers. About 28 percent of the crop was not harvested. This undoubtedly will cause a considerable reduction of acreage in the early producing States, (Louisiana, Texas, and California) in 1937. This group of States expanded its acreage for the 1936 spring crop by 32 percent over 1935 and 52 percent over the average. Growers of Bermuda type onions face the prospect of low returns again in 1937. An important factor is the quantity of the 1936 late onion crop carried over and thrown on the market in competition with the new 1937 crop. Unless there is considerable shrinkage or loss in this exceedingly heavy late crop it is probable that marketing will be drawn far out into the early crop season.

Growers in the intermediate States (New Jersey, eastern shore of Virginia, Kentucky, Oklahoma, Texas (north) Iowa (Scott county). Washington (Walla Walla), California) may be expected to decrease their plantings in 1937, but to a less extent than those in the early States. Below average yields in 1936 resulted in a production of onions 7 percent less than in 1935. Prices to growers in the intermediate States, being influenced by the exceedingly heavy early crop, declined to an average of 88 cents compared with \$1.38 the preceding year.

Sharp declines in prices of the 1935 late crop onions marketed after February 1936, and the heavy supply of the spring crop arriving from Texas, with the resulting low prices, influenced growers in the late or main crop States, particularly those in the Central States, to

The onion outlook for 1937 - 2.

reduce their plantings in 1936. However, with above average yields, the indicated production in the crop forecast of October was 18 percent larger than in 1935, and 25 percent larger than the 5-year average. A total production of 11,964,000 sacks, the largest on record, was indicated. Early season prices were the lowest since 1932. The decline in acreage in the late States was due almost entirely to reductions in the Central group of States (Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, other Iowa) where returns during the previous year had been less satisfactory than in other sections of the country. The 1936 acreage planted in these States was about 15 percent less than the 1935 acreage, which was only a little above the 1928-32 average. Increased yields per acre in the Central States, as in the late crop States as a whole, raised the probable production figure well above the previous years' record.

In the Eastern late crop States (Massachusetts, New York, and Pennsylvania) the acreage in 1936 was increased 5 percent over 1935 and 41 percent over the 5-year average. A production 33 percent in excess of 1935 was forecast in October.

Growers in the Western late States, (Idaho, Colorado, Utah, Nevada, other Washington, Oregon, California) planted about the same acreage in 1936 as they did in 1935. Production was forecast slightly under 1935. Heavy supplies and low prices in the Central States area, an important outlet for the western crop, forced early season prices on western grown stock to the lowest levels since 1932.

Prices of late onions in the fall of 1936 average around 90 cents per 100 pounds f.o.b., Rochester, New York compared with \$2.00 per 100 pounds a year ago. At Benton Harbor, Michigan, they averaged 80 cents per sack compared with \$1.65 in the fall of 1935. In view of the low prices received in 1936 and in the light of past experience, growers in the late onion producing States are likely to reduce their plantings in 1937. The Central and Western States probably will show the greatest reduction. If growing conditions are normal, it is reasonable to expect improved prices.

## Onions: Acreage, production and farm price

| Commodity                   | Acreage                            |              |              |              |              |
|-----------------------------|------------------------------------|--------------|--------------|--------------|--------------|
|                             | 5-year                             |              |              |              |              |
|                             | average                            | 1933         | 1934         | 1935         | 1936         |
|                             | 1928-32                            |              |              |              |              |
|                             | <u>Acres</u>                       | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> |
| Early (Bermuda) <u>1/</u>   | 23,060                             | 19,650       | 25,150       | 26,550       | 34,970       |
| Intermediate <u>2/</u> .... | 8,330                              | 10,400       | 12,390       | 17,200       | 20,450       |
| Late:                       |                                    |              |              |              |              |
| Eastern <u>3/</u> .....     | 10,990                             | 12,190       | 12,330       | 14,780       | 15,500       |
| Central <u>4/</u> .....     | 26,520                             | 24,480       | 21,000       | 26,900       | 22,900       |
| Western <u>5/</u> .....     | 15,530                             | 13,350       | 13,950       | 15,800       | 15,750       |
| Total, late .....           | 53,040                             | 50,620       | 47,280       | 57,480       | 54,150       |
| Total, all states ...       | 84,430                             | 80,670       | 84,820       | 101,230      | 109,570      |
|                             |                                    |              |              |              |              |
|                             | Production                         |              |              |              |              |
|                             | 1,000                              | 1,000        | 1,000        | 1,000        | 1,000        |
|                             | sacks                              | sacks        | sacks        | sacks        | sacks        |
|                             |                                    |              |              |              |              |
| Early (Bermuda) ....        | 2,308                              | 1,355        | 1,833        | 1,852        | 3,302        |
| Intermediate .....          | 1,337                              | 1,570        | 1,864        | 2,522        | 2,359        |
| Late:                       |                                    |              |              |              |              |
| Eastern .....               | 2,320                              | 2,752        | 3,338        | 3,101        | 4,125        |
| Central .....               | 4,198                              | 3,692        | 3,094        | 3,560        | 4,514        |
| Western .....               | 3,084                              | 2,802        | 2,878        | 3,511        | 3,325        |
| Total, late .....           | 9,602                              | 9,246        | 9,310        | 10,172       | 11,964       |
| Total, all states ...       | 13,247                             | 12,171       | 13,007       | 14,546       | 17,625       |
|                             |                                    |              |              |              |              |
|                             | Price per 100 pound sack <u>6/</u> |              |              |              |              |
|                             | Dollars                            | Dollars      | Dollars      | Dollars      | Dollars      |
|                             |                                    |              |              |              |              |
|                             |                                    |              |              |              |              |
| Early (Bermuda) ....        | 1.82                               | 1.16         | 1.16         | 2.72         | .76          |
| Intermediate .....          | 1.29                               | 1.36         | 1.41         | 1.38         | .83          |
| Late:                       |                                    |              |              |              |              |
| Eastern .....               | 1.27                               | 1.25         | 1.11         | 1.25         |              |
| Central .....               | 1.19                               | 1.01         | 1.22         | 1.11         |              |
| Western .....               | 1.18                               | .83          | .88          | .80          |              |
| Total, late .....           | 1.21                               | 1.03         | 1.07         | 1.04         |              |
| Total, all states ...       | 1.31                               | 1.09         | 1.13         | 1.32         |              |

1/ Louisiana, Texas, California.2/ New Jersey, Virginia, Kentucky, Oklahoma, Texas, North Iowa, Scott county; Washington, Walla Walla county; California.3/ Massachusetts, New York, Pennsylvania.4/ Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, other.5/ Idaho, Colorado, Utah, Nevada, Washington, other, Oregon, California.6/ Average price received by growers for crop marketing season.





## THE WATERMELON OUTLOOK FOR 1937

The production of watermelons for the country as a whole in 1937 is expected to be somewhat larger than what was produced in 1936; prices to growers may be substantially lower. Watermelon prices in 1936 were about 40 percent higher than in 1935 and the highest since 1930, and indicate a substantial increase in the total acreage planted to this crop in 1937. With average yields on this increased acreage and average weather conditions in consuming centers, the prospects are for lower prices in 1937.

Prices in 1936 were higher than in 1935 in each of the three marketing areas and indicate that the acreage in 1937 in each of these areas will be increased over that of 1936. If growers respond to prices this year as they have in the past, it is probable that the United States commercial watermelon acreage in 1937 will be the largest since 1932, which was the third largest acreage on record. Yields for the country as a whole averaged 270 melons per acre during the last 5 years compared with 322 melons per acre during the preceding 5 years. If yields per acre in 1937 are no larger than the low yields of the more recent period, the increase in acreage probably would not be excessive although prices probably would be lower.

Watermelon prices in 1935 averaged only \$98 per car of 1,000 melons. As a consequence, plantings in 1936 were reduced to about 191,850 acres, or 7 percent below the 1935 acreage. Growing conditions in 1936 were fairly favorable, and for the country as a whole the yield per acre averaged 283 melons, giving a total production of 54,353,000 melons, or 6 percent below the 1935 crop. Prices to growers reflected this relatively light production and the hot, dry weather in consuming centers and advanced to an average of \$139 per 1,000 melons. This was \$41 higher than the prices received for the 1935 crop.

The early States (Florida and Imperial Valley of California) reduced their 1936 plantings to 23,500 acres, the smallest acreage in many years. Yields were above average, but the reduced plantings kept down the production to about 9,355,000 melons, the smallest crop since 1933. Growers' prices advanced 45 percent over 1935 to an average of \$187 per 1,000 melons, and it is probable that growers will respond to these higher prices and increase the planted acreage in 1937. If normal yields are obtained in 1937, any considerable increase of plantings might produce more melons than can be marketed during these early months of the season.

In the second-early States (Alabama, Arizona, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas) the 1936 returns to growers averaged higher than at any time during the last 7 years, or around \$126 per 1,000 melons, compared with only \$78 in 1935. Plantings in the second-early States were reduced about 10 percent from those of 1935 to 121,270 acres. Yields were moderate and a light crop of only 27,310,000 melons was produced, or about 9 percent below that of 1935 and about 28 percent below average. This group of States usually produces more than half the total watermelon crop of the United States and markets at the most favorable season of the year - or when the weather in consuming centers is

usually hot and dry. The exceptionally high prices received in 1936 probably will induce larger plantings in 1937. Probably the best returns to growers would be obtained if only a very small increase in the 1937 acreage were made.

The late States (Arkansas, California, Colorado, Delaware, Illinois, Indiana, Iowa, Maryland, Missouri, New Jersey, Oklahoma, Oregon, Virginia, Washington) made a slight increase of plantings in 1936, totaling 47,150 acres. The yield per acre was relatively high, averaging 365 melons, and about 17,188,000 melons were produced. It was one of the largest late crops on record. Demand conditions continued favorable and the crop was marketed at higher average prices than in 1935 or any other recent year. Growers received an average of \$132 per 1,000 melons in the late States as a whole, and may be inclined to plant still more in 1937.

Watermelons: Commercial acreage, production, and season average price received by producers, by groups, average 1928-32, and annual 1933-36

| Item and group    | Average<br>1928-32           | 1933                         | 1934                         | 1935                         | 1936<br>Prelim.              |
|-------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
|                   | <u>Acres</u>                 | <u>Acres</u>                 | <u>Acres</u>                 | <u>Acres</u>                 | <u>Acres</u>                 |
| Acreage:          |                              |                              |                              |                              |                              |
| Early.....        | 42,870                       | 30,000                       | 31,500                       | 26,000                       | 23,500                       |
| Second early..... | 139,220                      | 107,150                      | 114,400                      | 134,900                      | 121,200                      |
| Late.....         | 43,020                       | 45,500                       | 46,440                       | 45,560                       | 47,150                       |
| Total.....        | 225,110                      | 182,650                      | 192,340                      | 206,460                      | 191,850                      |
|                   | <u>1,000<br/>melons</u>      | <u>1,000<br/>melons</u>      | <u>1,000<br/>melons</u>      | <u>1,000<br/>melons</u>      | <u>1,000<br/>melons</u>      |
| Production:       |                              |                              |                              |                              |                              |
| Early.....        | 15,601                       | 8,835                        | 9,625                        | 10,500                       | 9,355                        |
| Second early..... | 38,543                       | 24,057                       | 21,906                       | 30,676                       | 27,810                       |
| Late.....         | 15,909                       | 16,296                       | 16,645                       | 16,930                       | 17,188                       |
|                   | 70,053                       | 49,188                       | 48,176                       | 58,106                       | 54,353                       |
|                   | <u>Dollars<br/>per 1,000</u> | <u>Dollars<br/>per 1,000</u> | <u>Dollars<br/>per 1,000</u> | <u>Dollars<br/>per 1,000</u> | <u>Dollars<br/>per 1,000</u> |
| Farm Price:       |                              |                              |                              |                              |                              |
| Early.....        | 189                          | 163                          | 146                          | 129                          | 187                          |
| Second early..... | 107                          | 77                           | 99                           | 78                           | 126                          |
| Late.....         | 121                          | 85                           | 102                          | 110                          | 132                          |
| United States...  | 129                          | 96                           | 108                          | 98                           | 139                          |

## THE OUTLOOK FOR TRUCK CROPS FOR COMMERCIAL MANUFACTURE FOR 1937

### General Summary

Producers of vegetables for commercial manufacture in 1937 probably will contract to grow acreages at prices about equal to those of 1936. Fairly large acreages probably will be planted in 1937. The total supply (1936 pack plus carry-over) of canned vegetables available for marketing during the 1936-37 season is smaller than the supply for the 1935-36 season but probably is 5 percent larger than the 5-year (1930-34) average supply.

Current wholesale prices of canned vegetables are higher than a year ago, and for most commodities are expected to average considerably higher for the 1936-37 marketing season than in 1935-36, when the unusually large supplies of the important canned vegetables were marketed at extremely low prices.

The acreage planted to 11 canning vegetables in 1936 was only 3 percent less than the record planting of 1935. Had average growing conditions prevailed, canners would have been faced with a burdensome supply for the second successive year. The drought of 1936 drastically curtailed the pack of green peas and sweet corn, and, in some areas, caused severe damage to the tomato crop. Thus the combined pack of all canned vegetables in 1936 was materially reduced. Total carry-over from the 1935 packs was relatively small so that total supply for the 1936-37 marketing season is not greatly in excess of average. With an expected increase in consumer buying power in 1937, it is probable that canners will be able to dispose of most of the current supply of canned vegetables and enter the 1937-38 marketing season with a relatively small carry-over.

The volume of movement of canned vegetables from canners' hands during the 1935-36 season exceeded that of any season in 15 years. Factors contributing to this large movement were: (1) The prices of canned vegetables were relatively lower than those of fresh vegetables. (2) Low stocks in the hands of distributors at the beginning of the season stimulated movement from canners' warehouses. (3) Consumer buying power increased. (4) Fear of probable effects of the drought in the spring and early summer of 1936 was to some extent an added stimulus to sales.

The greatly accelerated movement from canners' hands undoubtedly had a significant bearing on the optimism with which canners contracted relatively large acreages in 1936 at prices to growers equal to the 1935 level. The acreage of canning vegetables tends to follow a 5-year cycle: 3 years of expansion in acreage, during which supplies are built up to a point where they exceed market requirements, are succeeded by 2 years of rather pronounced decreases in acreage. The cycle shows peak acreages in 1925, 1930, and 1935, the planting of approximately 1,555,000 acres of the 11 canning vegetables in 1935 having exceeded all records. Although the total supply of canned vegetables for the 1935-36 season exceeded that of any season since 1925-26, the acreage planted to these vegetables in 1936 declined only 55,000 acres to an estimated total of 1,500,000 acres. But owing to damage from the drought, the yield per acre in 1936 was considerably below average so that total production was about 12 percent less than production in 1935.



## Truck Crops for Commercial Manufacture, #2

Prices received by canners during the 1935-36 season apparently were about 25 percent below the pre-depression (1924-29) average. Preliminary estimates indicate that prices received by growers in 1936 were about the same as received in 1935 but remained at a level 22 percent below the pre-depression average. If canners and growers make plantings in 1937 equal to those of 1936, these acreages, under average growing conditions, would result in large supplies of canned goods which probably would be marketed at prices somewhat in line with the low level of 1935-36.

### SNAP BEANS FOR MANUFACTURE

#### Summary

Judging from the relatively high wholesale prices of canned snap beans now prevailing, it appears that canners will make contracts with growers in 1937 for acreage at prices at least equal to those received by growers in 1936.

A planting of 54,000 acres in 1937, or an acreage about equal to that of 1936, would produce a pack of approximately 7,000,000 cases under average growing conditions of the last 5 years. Assuming a disappearance about in line with recent years, such a pack in 1937 would be sufficient to meet normal consumption requirements in 1937-38 and leave a carry-over in canners' hands in line with the average of the last 4 seasons.

The supply of canned snap beans available for the current marketing season (1936-37) is nearly equal to the average of the last 5 seasons. As disappearance during the last 2 marketing seasons has equaled or exceeded the current season's supply, it is probable that carry-over at the end of the 1936-37 season will be very small.

#### Snap beans for canning: Production, supply, disappearance, prices

| Marketing season :<br>August 1 :<br>to July 31 : | Production :<br>for :<br>canning : | Average :<br>price :<br>to :<br>growers : | Supply of :<br>canned snap beans :<br>(pack plus :<br>carry-over) : | Disappearance of :<br>canned snap beans :<br>from canners' :<br>hands : | Wholesale price :<br>of canned :<br>snap beans :<br>at Baltimore : |
|--|------------------------------------|---|---|---|--|
|  | Tons                               | Per ton                                   | 1,000 cases No. 2s  | 1,000 cases No. 2s  | Per dozen No. 2 cans   |
| 1931-32 :  | 68,700                             | \$ 52.98                                  | 7,567   | 6,167   | \$ .63   |
| 1932-33 :  | 43,900                             | 37.97                                     | 5,424   | 4,724   | .61  |
| 1933-34 :  | 60,200                             | 38.59                                     | 6,232   | 5,532   | .71  |
| 1934-35 :  | 66,100                             | 41.23                                     | 7,000   | 6,620   | .74  |
| 1935-36 :  | 81,500                             | 43.06                                     | 7,541   | 7,381   | .69  |
| 1936-37 :  | 73,300                             | 42.59                                     | 6,660   | --  | ---  |

#### Prices Below Average

Prices that canners contract to pay growers are influenced by the level of wholesale prices of the canned product during the December and January preceding the growing season. Prices received by canners during the 1935-36 season were 7 percent below the wholesale level of the previous season because of a larger supply. Contract prices paid to growers in 1936 were slightly below those of 1935 and were 9 percent less than the 5-year (1930-34) average. The wholesale price level of canned snap beans (October 1936) is considerably higher than prices a year ago.



Snap Beans, Continued

Supply About Average

Although plantings of snap beans for commercial manufacture in 1936 were 5 percent larger than the 1935 acreage, the estimated production is 10 percent smaller because of light yields per acre in growing areas where the drought was severe. The estimated pack of snap beans in 1936 is smaller than the pack of 1935 but is 8 percent larger than the 5-year (1930-34) average. Carry-over from the pack of 1935 was the smallest of recent years. Total supply (pack plus carry-over) for the 1936-37 marketing season is 12 percent below the supply of the preceding season but is about in line with the average of the last 5 seasons.

Disappearance Above Average in 1935-36

The rate of disappearance of canned snap beans is influenced, to a large extent, by factors other than the size of supplies, such as consumer buying power, prices of competing vegetables, and the production of snap beans for the fresh market. During the past season (1935-36) disappearance from canners' hands was unusually large, amounting to 7,381,000 cases compared with the average of 5,760,000 cases for the 4 preceding seasons. Factors contributing to this large disappearance were (1) the relatively low wholesale prices of canned snap beans, (2) an increase in consumer buying power in 1936, and (3) a smaller production of fresh snap beans in the early producing States, accompanied by relatively high prices for the fresh crop. Assuming there will be some increase in consumer buying power in 1937, it is probable that most of the supply available for the marketing season ending July 31, 1937, will move from canners' hands by that date. In that event, disappearance would be approximately as large as in the 1934-35 marketing season.

Acreage Requirements for 1937

Assuming that 6,500,000 cases - a quantity which is about equal to the average disappearance of the last 3 seasons - can be marketed by canners in 1937-38 at prices slightly higher than those of recent years, it appears that a pack of 7,000,000 cases in 1937 would fill consumption requirements and leave a carry-over about in line with the average of the last 4 seasons. A total production of about 78,000 tons would be required for this pack. Under average growing conditions of the last 5 years, when the yield averaged about 1.5 tons per acre, it will require a planting of 54,000 acres to produce this tonnage. This planting would be about the same as the acreage planted in 1936.

SWEET CORN FOR MANUFACTURE

Summary

A planting of 360,000 acres in 1937, or 15 percent less than the record-high planting of 1936, would produce, under average growing conditions, a sufficient quantity of sweet corn for canning to meet usual consumption requirements and provide a reasonable carry-over in canners' hands at the end of the season. It is likely that prices to growers in 1937 will be no higher than those of 1936.

The drought of 1936 greatly reduced the pack of sweet corn. Total supply (pack plus carry-over) for the 1936-37 marketing season is 32 percent less than the large supply of last season and is 11 percent below the 5-year (1930-34)

# Truck Crops for Commercial Manufacture, #4

## Sweet Corn, Continued

average. The current supply is moving from canners' hands at prices well above the low prices of last season. Carry-over in canners' hands at the end of the current season (August 1, 1937) probably will be very small. Most of the supply for the 1937-38 marketing season, therefore, must be produced from plantings of 1937.

Considering the small supply and the relatively high wholesale prices now being received for canned corn, canners may be influenced to make contracts with growers in 1937 for a total acreage equal to the large planting of 1936. In this event, average growing conditions in 1937 would result in a pack of about 20,000,000 cases. Total supply would then be almost as large as the supply for last season when canners received the lowest prices for canned sweet corn since 1932-33.

### Sweet corn for canning: Production, supply, disappearance, prices

| Marketing season :    | Production :     | Average price :    | Supply of canned :                  | Disappearance :       | Wholesale price :                                 |
|-----------------------|------------------|--------------------|-------------------------------------|-----------------------|---|
| August 1 to July 31 : | for canning :    | price to growers : | sweet corn (pack plus carry-over) : | from canners' hands : | canned sweet corn (f.o.b. Midwestern factories) : |
|                       | Tons (in bush) : | Per ton :          | 1,000 cases No. 2s :                | 1,000 cases No. 2s :  | Per dozen No. 2 cans :                            |
| 5-year av. :          |                  |                    |                                     |                       |   |
| 1928-32 :             | 628,000          | \$11.50            | 19,200                              | 15,540                | \$ .785   |
| 1933-34 :             | 394,300          | 8.01               | 12,693                              | 11,393                | .758  |
| 1934-35 :             | 498,000          | 8.46               | 12,568                              | 12,388                | .998  |
| 1935-36 :             | 859,900          | 9.31               | 21,651                              | 20,771                | .694  |
| 1936-37 :             | 581,700          | 9.76               | 14,650                              | --                    | --  |

### Prices Below Average

Prices which canners received for the canned product during the 1935-36 season were about 30 percent below the level for 1934-35 and 12 percent below the 5-year (1928-32) average. This decline followed the large pack of 1935 and was the lowest price since the marketing season 1932-33. Prices received by growers in 1936 probably were 5 percent higher than those of 1935 but were 15 percent below average.

### Supply Below Average for 1936-37

The acreage planted to sweet corn for commercial canning in 1936 was the largest on record. The yield per acre, however, was the smallest on record because of severe damage by drought in the Midwestern States. Total pack of sweet corn probably was reduced about 6,000,000 cases by the unfavorable growing conditions. Carry-over from the pack of 1935 was relatively small and total supply (pack plus carry-over) for the 1936-37 marketing season is estimated at 14,650,000 cases compared with 21,651,000 cases in 1935-36 and with the average of 16,455,000 cases for the 5-year (1930-34) period.

### Disappearance Unusually Large in 1935-36

Disappearance of sweet corn from canners' hands during the 1935-36 season apparently was 20,771,000 cases, the largest on record. The average disappearance for the 10 seasons, 1925-26 to 1934-35, was about 15,000,000 standard cases. In 6 of these 10 seasons, the annual disappearance was in excess of the total

# Truck Crops for Commercial Manufacture, #5

## Sweet Corn, Continued

available supply for the 1936-37 season. Although current wholesale prices for canned sweet corn are materially higher than last season, most of the light supply for the 1936-37 season probably will move from canners' warehouses by August 1, 1937.

## Acreage Requirements for 1937

Assuming that most of the current supply will move from canners' hands before the 1937-38 marketing season, plantings in 1937 should be sufficient to produce an adequate supply for the 1937-38 season and leave a reasonable carry-over at the end of that season. Judging from past records, it would seem that canners should be able to market about 15,000,000 cases at prices near the average of the 10-year (1925-34) period. A pack of about 17,000,000 cases in 1937 would provide for these average market requirements and leave a carry-over not in excess of 2,000,000 cases. With average growing conditions this pack could be produced on a planting of 360,000 acres, which is 15 percent below the acreage planted in 1936.

## GREEN PEAS FOR MANUFACTURE

### Summary

With a yield per acre equal to the average of the last 10 years, a planting of around 265,000 acres, which is a reduction of about 20 percent below the planted acreage of 1936, would seem to be sufficient to meet average consumption requirements at prices for canned peas a little above those existing at present. But should growing conditions in 1937 be similar to the average of the last 5 years, in 4 of which yields per acre were unusually low because of adverse weather and insect damage, it would require a planting of about 300,000 acres, or 10 percent less than the 1936 acreage, to provide a supply in line with average consumption requirements.

The pack of canned green peas in 1936 was 16,586,000 cases as compared with the record pack of 24,690,000 cases in 1935. The 1936 pack, together with a relatively large carry-over of almost 5,000,000 cases, has provided a total available supply of almost 21,500,000 cases for the 1936-37 marketing season. Largely because of the reduction of the 1936 pack, the price to canners thus far in the current marketing season has averaged 10 to 15 percent above the level of last year.

Green peas for manufacture: Production, supply, disappearance, prices

| Marketing season<br>May 1 to<br>April 30 | Production<br>for<br>manufacture | Average price<br>to<br>growers | Supply of canned<br>peas (pack plus<br>carry-over) | Disappearance<br>from<br>canners'<br>hands | Wholesale price<br>canned peas<br>(Wisconsin brokers) |
|--|----------------------------------|--------------------------------|--|--|---|
|  | Tons (shelled)                   | Per ton                        | 1,000 cases No. 2s                                 | 1,000 cases No. 2s                         | Per dozen No. 2 cans                                  |
| 5-yr. av.                                |                                  |                                |  |  |   |
| 1928-32                                  | 182,070                          | \$54.13                        | 20,632   | 16,612                                     | \$ .96  |
| 1933-34                                  | 136,980                          | 42.48                          | 15,393   | 14,493                                     | 1.11  |
| 1934-35                                  | 165,370                          | 50.09                          | 16,642   | 15,842                                     | 1.16  |
| 1935-36                                  | 268,120                          | 51.80                          | 25,499   | 20,599                                     | .80   |
| 1936-37                                  | 175,290                          | 52.06                          | 21,486   | --   | --  |



Green Peas, Continued

Pack and Production Comparatively Low

The 1936 pack of green peas was 16,586,000 cases as compared with 24,699,000 cases in 1935. This reduction in pack was the result of a 7 percent decrease in acreage, and of an average yield of only 1,200 pounds of green peas per acre as compared with more than 1,700 pounds in 1935. The yield was reduced in all of the important pea-growing regions, and particularly in New York, Maryland, Delaware, and Virginia. For the country as a whole, growing conditions for green peas were the worst in many years, particularly in areas of extreme drought.

Supply Above Average

The total available supply of canned peas for the marketing year 1936-37 (current pack plus carry-over) is about 21,500,000 cases. This is roughly 4,000,000 cases less than last year but substantially above the average which has prevailed since 1930-31. The supply available for the current year was considerably increased by a carry-over of almost 5,000,000 cases from the large 1935 pack.

In addition to the supply of canned green peas, there are some stocks of frozen peas and of canned soaked peas. The quantities are not known, but changes in the quantities of soaked and frozen peas are probably not an important factor in the price of canned green peas in the current marketing season.

Prices of Canned Peas About Average

Prices being received by canners thus far (October 1936) in the current marketing season have been averaging from 10 to 15 cents per dozen No. 2 cans of standard Alaskas above last season's average. Last season's canner prices, however, were unusually low. At present (October 1936) they are about equal to those of the period 1930-31 to 1932-33, and somewhat below those of the subsequent 2 years. Prior to last year, prices for canned peas had not fallen as much in relation to pre-depression levels as prices of other canned vegetables.

Disappearance Was Large in 1935-36

Disappearance into trade channels, which is the movement from canners' hands, was the greatest last year in the history of the industry. It approximated 20,600,000 cases, as compared with the previous record figure of about 19,500,000 cases in 1930-31. Actual consumption, however, was probably not quite so large as this figure would indicate, since there was more forward buying than usual by the trade in the early spring of 1936. At the higher level of prices prevailing in the current year (1936-37) consumption can hardly be expected to approximate that of last year. Even so, however, it is reasonable to expect that the industry may move close to 19,000,000 cases into the channels of distribution. This would leave a carry-over in the spring of 1937 of about 2,500,000 cases as compared with almost 5,000,000 in 1936.

Grower Prices Well Maintained

Prices to growers for raw peas were well maintained in 1936 despite the



Green Peas, Continued

lower prices prevailing for canned peas during last January and February when grower contracts were being made. That canners were thus willing to maintain prices to growers was probably due largely to the active buying on the part of the trade at that time.

Acreage Requirements for 1937

If it is assumed that 18,000,000 cases of canned peas could be consumed in 1937-38 at prices reasonable to growers, canners, and consumers alike, a pack of around 17,000,000 cases in 1937, together with the probable carry-over from the 1936 pack, would be sufficient to meet consumption requirements and leave a nominal carry-over.

Given a yield per acre equal to the average of that of the last 5 years (in 4 of which they have been unusually low), this pack could be produced with a planting of about 300,000 acres. This is about 33,000 acres less than were planted in 1936, but 22,000 acres more than the average of the 5-year period 1932-36. Because of the great fluctuation in yields that has prevailed during the last few years it has been difficult for the pea canners to plan acreage in accordance with probable market needs. It is well to keep in mind, however, that with good growing conditions, a planting of 300,000 acres would result in a pack of almost 20,000,000 cases. Under present conditions of demand, this pack would probably prevent any increase in canned pea prices in 1937-38 over present levels.

TOMATOES FOR MANUFACTURE

Summary

Considering the low prices now being received by tomato packers for the canned commodity, it seems likely that packers will contract a smaller acreage with growers in 1937 at a scale of prices no higher than prevailed in 1936.

Under average growing conditions, an acreage of tomatoes for commercial manufacture (canning and processing) in 1937 about 11 percent less than the acreage planted in 1936, probably would be sufficient to keep the supply (pack plus carry-over) of canned tomatoes and other tomato products within the limits of average consumption requirements and leave an average carry-over at the end of the 1937-38 marketing season. If supply is kept within the limits of average consumption requirements and carry-over, canners should be able to market their commodity at prices above the present low level.

Following the record-high plantings of 1935, acreage was reduced 10 percent in 1936. But the yield per acre was higher in 1936 so the crop was almost as large as the record production of 1925. As a result, canners again have a large supply of their commodity, which is moving into distribution channels at prices little above the low prices received during the 1935-36 marketing season, when the supply was unusually large.

During the 12 months ended July 31, 1936, the movement of canned tomatoes from canners' hands was the second-largest on record, having been exceeded only

Tomatoes, Continued

in 1935-26. The movement of last season was accelerated by the unusually low prices and increased buying power of consumers and probably was aided by the small stocks in distributors' hands at the beginning of the season. The expected increase in consumer buying power in 1937, together with the relatively low prices, should mean another large disappearance of canned tomatoes during the current marketing season and result in a small carry-over.

Tomatoes for manufacture: Production, supply, disappearance, prices

| Marketing season<br>August 1 to July 31 | Production for manufacture | Average price to growers | Supply of canned tomatoes (pack plus canners' carry-over) | Disappearance of canned tomatoes from canners' hands | Wholesale price canned tomatoes (f.o.b. Indiana) |
|---|----------------------------|--------------------------|---|--|--|
|   | Tons                       | Per ton                  | 1,000 cases No.2s   | 1,000 cases No.2s                                    | Per doz. No.2 cans                               |
| 5-yr. av                                |                            |                          |   |  |  |
| 1928-32                                 | 1,293,000                  | \$13.27                  | 24,477  | 21,681   | \$ .86   |
| 1933-34                                 | 1,081,300                  | 11.33                    | 22,261  | 21,391   | .85  |
| 1934-35                                 | 1,420,700                  | 12.03                    | 23,243  | 21,916   | .85  |
| 1935-36                                 | 1,689,000                  | 11.68                    | 21,315  | 26,885   | .70  |
| 1936-37                                 | 1,739,000                  | 11.81                    | 26,430  | --   | --   |

Prices are Lower than Average

Preliminary estimates indicate that the average price received by growers of tomatoes for commercial manufacture was slightly higher in 1936 than in 1935 but was 11 percent less than the 5-year (1928-32) average. During the marketing season ended July 31, 1936, however, canners received 18 percent less for canned tomatoes than they received the previous season and 19 percent less than the 5-year average. Current prices to canners for canned tomatoes are slightly higher than a year ago but remain on a relatively low level.

The level of prices received by canners in December and January is usually a significant factor in determining prices at which tonnage will be contracted with growers the following season. During December 1935, and January 1936, prices received by canners were relatively low because of the large supplies of canned tomatoes. But there was a rapid movement of supplies from canners' hands at this low price, and canners made contracts with growers in 1936 at a slightly higher scale of prices than in 1935 but decreased the acreage under contract. Judging by the present low prices received by tomato canners, it appears that contracts will be made with growers in 1937 for a smaller acreage at prices per ton not exceeding the 1936 level.

Canned Supplies are Large

Plantings in 1936 were 10 percent smaller than the record-high 1935 acreage. Although drought greatly curtailed the production in Arkansas, Missouri, Iowa, Kentucky, Tennessee, and Virginia, the growing conditions in other States were relatively favorable. The total production of tomatoes for manufacture in 1936, as estimated on October 1, is 3 percent larger than the 1935 crop, and the third-largest crop on record.

During recent years the proportion of the crop utilized as canned tomatoes has declined because of rapid expansion in the canning of tomato juice.

Tomatoes, Continued

In 1935, apparently about 43 percent of the tonnage was used as canned tomatoes, and from 15 to 17 percent as tomato juice. The remainder of the crop went into such products as pulp, catsup, soups, and sauces. Although pack statistics for the 1936 crop are not yet available, the pack of canned tomatoes is expected to be 7 percent below the 1935 pack but 14 percent above the 10-year (1925-34) average. The pack of tomato juice is expected to be larger than in 1935. The pack of tomato juice in 1935 totaled 8,171,000 cases (all sizes) compared with 5,704,000 cases in 1934, 4,171,000 in 1933, and 4,584,000 in 1932.

Carry-over of canned tomatoes during the last 3 marketing seasons has been unusually small. For the season beginning August 1, 1936, canners' carry-over was again at a low level. Adding this carry-over to the estimated pack indicates a total supply of domestic canned tomatoes for the 1936-37 marketing season about 7 percent less than the large supply of last season but 5 percent larger than the 10-year average. The supply of tomato juice probably will be somewhat larger for the 1936-37 season than for the preceding season. As complete pack statistics of other tomato products have never been collected, it is not possible to estimate the supply for the 1936-37 marketing season.

Disappearance Large

The supply of canned tomatoes at the beginning of the 1935-36 season was the largest in 5 years but there was an unusually active demand at relatively low prices, so the disappearance from canners' warehouses for the 12 months ended July 31, 1936, was the largest in 10 years for a corresponding period. It totaled 26,885,000 cases compared with the 10-year (1925-34) average of 22,073,000 cases. Exports of canned tomatoes last season were about in line with recent years, amounting to only 70,000 cases. Imports, equivalent to 2,393,000 cases, were the smallest in recent years.

On the basis of the present level of prices received by canners and an expected increase in consumer buying power in 1937, it appears that movement from canners' hands for the 12 months ending July 31, 1937, will again be large and stocks of old tomatoes in canners' hands on that date will be very small.

Acreage Requirements for 1937-38 Season

In planning their acreages for 1937, canners and growers of tomatoes for manufacture are faced with the problem of making such adjustments in acreage as will probably yield packs of tomatoes and tomato products that can be marketed during the 1937-38 season at prices above the low levels now prevailing. Judging from past records of supply and disappearance, it appears that canners may be able to market a total of 22,000,000 cases of canned tomatoes in 1937-38 at prices more nearly in line with the higher level of the 10-year (1925-34) average. In this event, a pack not in excess of 23,000,000 cases, basis No. 2 cans, would fill consumption requirements and leave a carry-over of approximately 2,000,000 cases at the end of the season. This carry-over would be slightly larger than the average of the last 4 seasons.

Tomatoes, Continued

A production of approximately 1,500,000 tons probably would provide for the required pack of canned tomatoes, and leave an adequate tonnage for the manufacture of juice and other tomato products. This tonnage would allow for a pack of tomato juice in line with the increased demand of the last 2 years. At the 5-year (1931-35) average yield of 3.8 tons per acre, it would require a planting not exceeding 415,000 acres, or 9 percent less than the 1936 acreage, to produce a pack of 23,000,000 cases, allowing about 52 percent of this acreage for the production of tomatoes for juice, soups, catsup, and similar products. At the 10-year (1926-35) average of 4 tons per acre, a planting of 395,000 acres, or 13 percent less than plantings in 1936, would be sufficient to produce this pack.

-----



## THE FRUIT OUTLOOK FOR 1937

The combined supplies of all fruits are in general increasing and can be expected to continue upward for the next 4 or 5 years. A possible slight decline in total apple and peach production will be offset by larger production of citrus fruits, grapes, and cherries. Pear supplies are probably nearly stable at present levels with some slight increase possible.

The outlook for the fruit industry as a whole is considerably influenced by the level of income of consumers. Consumer demand for all fruits is such that large crops tend to result in about the same gross income as do small crops. The total income from fruit depends mainly on consumer buying power. This, of course, does not mean that growers of all fruits can expect prices to increase regardless of size of production. The citrus industry as a whole may expect declining prices as the crop increases with the increase in bearing acreage and, more particularly, the increasing production of trees already in bearing. Apple and peach growers, on the other hand, might expect some improvement in prices. But increased buying power of consumers will be a favorable influence on prices even in those instances in which total production is excessive, and the gross income from sales of all fruits combined will probably move upward with the increases in consumer income.

Using per capita production as an index it appears that the consumption of all fruits on a per capita basis has been increasing slightly during the decade ended with the period 1931-35. This apparent change is shown by the comparison between three 5-year periods, 1921-25, 1926-30, and 1931-35. During the first period the per capita production of seven fruits combined was 160 pounds, while in the latter period it had increased to an average of 168 pounds, which was still below the total consumption for the period 1926-30. The largest increase took place in citrus fruits which advanced from about 32 pounds per capita in the first 5-year period to an average of 48 pounds for the latter 5 years. The latter was made up of 33 pounds of oranges, 10 pounds of grapefruit, and 5 pounds of lemons. Apples showed the greatest drop, from 66 pounds to 59 pounds, while peaches were unchanged at 20 pounds. Grapes declined from 34 to 32 pounds and pears increased slightly from about 8 pounds to 9 pounds. Imports of bananas declined from 28 pounds to 20 pounds per capita.

## Per capita production of fruit

|                   | 1921-25         | 1926-30         | 1931-35         |
|-------------------|-----------------|-----------------|-----------------|
|                   | lbs. per capita | lbs. per capita | lbs. per capita |
| Apples            | 66              | 64              | 59              |
| Peaches           | 20              | 21              | 20              |
| Pears             | 8               | 9               | 9               |
| Grapes            | 34              | 40              | 32              |
| Citrus - Total    | 32              | 39              | 48              |
| Oranges           | 22              | 27              | 33              |
| Grapefruit        | 6               | 8               | 10              |
| Lemons            | 4               | 4               | 5               |
| Total 7 fruits    | 160             | 173             | 168             |
| Bananas - imports | 22              | 26              | 20              |

The acreage of citrus fruits, particularly grapefruit, appears to be excessive. With a very great increase in production in immediate prospect it is highly unlikely that average prices during the next 5 years will be improved greatly over those of the last 2 or 3 years. Apparently apple production is still following a downward course and the number of trees now in orchards is at a lower level than at any time during the last 25 years. Some improvement in prices received by producers may be expected. Peaches are at a point where production is about stable, with some decline indicated. New plantings, however, are going in rapidly in the south, and the danger lies in over-planting at this time. The anticipated production under average growing conditions of peaches for fresh market is not in excess of market requirements. It seems probable that present acreage of all varieties of grapes is sufficient, with average growing conditions, to meet all needs during the next 3 or 4 years. Cherry production will continue to advance. Pear production seems to be about stable at the present level with the possibility of some small increase in trend during the next 3 or 4 years. Around one-fourth of the pear crop is exported. Consequently, the outlook is considerably influenced by the turn of events in foreign countries.

Foreign Fruit Outlook

For many years the fruit industry of the United States has leaned heavily on foreign markets as an outlet for an important part of the production of certain fruits. In the case of fresh apples, pears, and grapefruit, the foreign markets have provided the most

### Fruit - 3.

profitable outlet for small and medium sizes. On an average in the 5-year period, 1931-35, about 15 percent of the commercial apple crop, 14 percent of the pear, 6 percent of the grapefruit, and 7.5 percent of the orange crops have been exported. Considerable quantities of lemons and grapes are also exported. An even larger proportion of certain dried and canned fruit is exported. For instance, about 75 percent of the dried pear, 50 percent of the dried prune and dried apricot, and 25 percent of the raisin production are exported. Probably over one-third of the canned pear and as much as half of the canned fruit salad and cocktail packs are exported. Exports of canned peaches, apricots and grapefruit are also significant.

Total exports of fresh dried and canned fruits in the 1935-36 season, July to June, were valued at \$94,729,000 compared with \$70,850,000 in 1934-35. Fruit exports constituted the third most important group of agricultural exports, being exceeded only by exports of cotton and tobacco. The volume of fruit exports declined less during the depression than most any other group of agricultural exports.

World production of most fruits is increasing. Consequently, keener competition may be expected in world markets in the future. However, if the American fruit industry continues to improve the quality of its product and to maintain high export standards, there should continue to be a profitable outlet for substantial quantities of fruit in foreign markets.

Demand conditions have continued to improve in many countries during the past year. Prices of most products, including fruit, appear to be trending upward.

The move towards stabilization of currencies, which has been coupled with a reduction of trade barriers in several countries, and the reductions of duties and other import restrictions secured under the trade agreements program are favorable factors. If the recent devaluation of currencies on the part of several important countries results in a stabilization of world currencies, foreign trade in all products will be facilitated. The reduction of duties and the removal of import restrictions (including several on fruit) which has accompanied devaluation in a number of instances, is also a very favorable factor. For the present season, however, the outlook for exports is probably not as promising as it was before devaluation and realignment of currencies began.

The Trade Agreement Act of June 12, 1934, has resulted in some valuable concessions on fruit. In every one of the 14 agreements signed to date concessions have been obtained of direct benefit to the domestic fruit industry. All the countries with one exception (Nicaragua) have given concessions on fresh fruits. Concessions on fresh apples and pears include increases in quota allotments, binding against any change in present treatment, and in some instances as much as a 50 percent reduction in duty. Concessions have been granted by 8 countries on fresh citrus fruits. Four countries have given concessions on oranges, 5 countries have reduced the duty on fresh grapefruit by 50 per cent or more, and one country (Sweden) has placed grapefruit on the free list. Concessions have also been secured on grapes and other fresh fruits.

With the exception of Brazil all of the countries with which agreements have been signed have made concessions on dried fruits. Dried apricots have benefited in 13 of the agreements, dried prunes in 12, raisins in 11, and dried apples, peaches, and pears in 10 agreements. Concessions have also been obtained on various other dried fruits.

Every one of the 14 countries with which agreements have been concluded has granted concessions on canned fruits. Concessions were obtained from 13 countries on canned peaches, pears, fruits for salad, and apricots. Ten agreements contain concessions on canned pineapples, and 8 agreements include concessions with respect to canned grapefruit. Advantages were also secured for other canned fruits such as canned apples, berries, cherries, plums, jellies, preserves, fruit juices, and other fruit preparations.



## THE CITRUS FRUIT OUTLOOK FOR 1937

### Summary

It is estimated that there are in the continental United States approximately 615,000 acres of orange and grapefruit trees that are old enough to be considered in commercial production. In addition, there are some 127,000 acres that are not yet of bearing age, making a total of 743,000 acres devoted to the production of these two fruits. If all of this nonbearing acreage comes into production with no more than a normal mortality and if the present bearing acreage suffers no unusual setback, it is entirely probable that the average crop of oranges and grapefruit combined for the next 5 years will amount to around 80,000,000 boxes. Such an average would be about 25 percent larger than the average crops for the 5 years, 1928 to 1932.

There are about 447,000 acres of orange trees of bearing age. About half of this acreage has reached full production and about one-fourth is between 5 and 10 years old, or in that period of growth during which production increases very rapidly. With this proportion of the acreage yet to come into full bearing it seems almost certain that orange production can be expected to continue upward at a moderate rate for at least another 3 or 4 years. This probably means that whereas the average orange crop for the last 5 years has amounted to around 53,000,000 boxes the average can be expected to be around 55,000,000 during the next 5-year period. This trend of total orange production will be accounted for in a stationary or slightly downward trend in production of navel and other early varieties and a continuation of the upward trend in the production of Valencias and other late varieties.

Grapefruit production is increasing and promises to continue upward for another decade provided there is no unusual abandonment of acreage. More than two-fifths of the trees, on about 168,000 acres, now in production are 11 years old or under and about one-fourth are between 11 and 15 years old. This means that the large crop of 1934 and the present large crop in prospect are being produced from groves only about one-third of which are in full production. As this large proportion of young trees increases in producing capacity it seems inevitable that production will mount to successively higher levels. Conditions below average prevailed last year. The crop produced was 18 $\frac{1}{2}$  million boxes. Present indications are that with only little better than average conditions a crop of 27,600,000 boxes will be available during the current marketing season. It appears that crops of 20 million boxes or more can be expected with increasing frequency during the next decade, and it is not improbable that with good growing conditions in all sections crops above the 30-million level may be seen within the next 10 years. With the exception of the present year there has been but one, 1934, when the production of grapefruit amounted to as much as 20,000,000 boxes.

## Citrus fruit - 2.

The production of grapefruit will increase in all sections. The largest increases will be in the late or seedless varieties. About 23 percent of the plantings in Texas are of these varieties; there only about 5 percent of the total bearing acreage has reached full production. In Florida, Texas, and Arizona, only about 15 percent of the acreage of seedless or late varieties has reached the age of full production and about 57 percent is between 6 and 10 years old.

The present situation with respect to the orange and grapefruit groves, therefore, would indicate that orange crops around 55,000,000 boxes and grapefruit crops well above 20,000,000 boxes may be expected to occur more frequently during the next 10 years than during a like period in the past. Crops as large as this, although occurring only occasionally, have always resulted in a pronounced reduction in the price the grower receives for fruit. Out of the last three orange crops, growers withheld from fresh-fruit channels considerable quantities that would not pay the handling costs. Increasing quantities of grapefruit have been diverted to canneries during the last 3 years and the pack of hearts and juice combined during the 1934-35 season nearly doubled the pack of the previous year. The increase was largely in juice, the pack of which was just short of four times as large during 1933-34 as for the year previous. During the 1935-36 season the pack was about 31 percent less than in the previous season, but was still about 75 percent above the average for the 5 years 1929-33. This byproduct diversion is usually at relatively low prices, and some of the effect of the removal of fruit from the fresh market may be offset by competition of the canned product. It appears, therefore, that the surplus problem for grapefruit will continue and will grow more acute as production increases.

Although reciprocal trade agreements will help in the disposal of large quantities of citrus fruits in foreign markets, the world production of oranges and grapefruit is also increasing. Consequently, sales in foreign countries will meet with greater competition. Outlet for the increased supply apparently must be sought largely in the domestic market.

Thus far citrus fruits have been consumed to a very large extent by the higher income groups. With production on a tonnage basis now second only to apples, and with fair promise of exceeding that during the next few years, the industry as a whole will be forced to seek a wider market, which may be done by bringing oranges and grapefruit within easy reach of the lower income groups. This would mean a revision of some practices, with reduction in handling and marketing costs all along the line. A pronounced and sustained increase in consumer purchasing power would be a material aid. In the long run, however, the production is likely to reach such a high level that perfection of processing methods, or wider distribution of fruit, or reduction in groves, or a combination of these will have to be the ultimate answer.

The crop of both oranges and grapefruit for the 1936-37 season promises to approach the record crop of 1934. There will probably be some reduction in price during the coming marketing season. The Spanish revolution will undoubtedly affect citrus exports from that country. This may aid in the disposal of surplus fruit this season on the foreign market.

### Oranges

The following table gives the pertinent statistics relative to the outlook for the production of oranges. The age at which orange trees reach full production varies under different soil and climatic conditions, but it has been assumed that in general an orange tree does not reach its full producing capacity until it passes its 15th year. A little more than one-fifth of the present bearing acreage is in that stage at which production increases very rapidly, from 6 to 10 years old, and a little less than one-fifth is from 10 to 15 years old and is only approaching full production. A rising trend of production is, therefore, indicated for a number of years, even though no further new plantings are made.

In general, the navel and miscellaneous groups, which are classed as early oranges, are older. Therefore, the trend of production is about constant or is possibly declining somewhat in States outside of Florida. These groups include a large acreage of seedling oranges in Florida and the production trend in that State will probably continue upward to offset to some extent any decline that may occur in other States.

The plantings of Valencia or late oranges have been heavy in recent years and the average acreage is younger than for the navel group. Evidently production in this group will increase strongly during the next 5 or 10 years.

Trend of total orange production moved up slowly from about 1920 to 1927, with a sharp increase taking place in 1928, and, with the exception of the break in 1929 as a result of freezes and the fruit fly, has maintained its upward trend on the higher level to date. Thus far, orange crops that exceed 50,000,000 boxes have been accompanied by sharp reduction in the average prices received by producers. An exception is noted in the case of 1935-36 when a crop of nearly 53,000,000 boxes was produced. Prices last year advanced over the prices of any recent year, although the crop in some recent years was much smaller. Control measures were employed for the last 3 years in California to regulate shipments and eliminate fruit that otherwise might have reached the fresh market. Consumer purchasing power increased materially during last marketing season, however, which accounts for a very large part of the improvement in prices.

With the existing situation regarding acreage, it appears inevitable that a continuing problem must be met with respect to this surplus situation in oranges. Improvement in demand will undoubtedly help in the disposal of larger quantities on the fresh markets. Reciprocal trade agreements will be helpful, but greatest attention will still have to be focused on the domestic market. Oranges have been considered chiefly a luxury or semiluxury product. It may be that careful attention to the distribution of the larger orange production will enable producers to widen the market to some extent by bringing oranges within reach of a larger part of the population. This type of development has proven most helpful in the past. In the early days oranges were very



much of a luxury product to be had only at holiday periods, except by the very high income groups. With the expanding production and improvement in transportation oranges have become much more generally used. It is possible that further expansion in consumption will be sufficient to offset to some extent the probable increase in average supplies.

No estimate of total orange production for the 1936-37 season is now available, but present indications point to a crop just a little under the record crop of 1934. With the small apple crop and some improvement in demand conditions the prices for oranges may not be greatly different from last year. For the coming season (1936-37) there may be an opportunity to market some fruit abroad, as competition from Spain will probably be less than usual.

#### Grapefruit

About two-thirds of all grapefruit trees now in production are less than 15 years old. More than two-fifths are from 6 to 10 years old, and not over a fifth have passed the 21 year mark. In view of this fact, as presented in the accompanying table, the trend of grapefruit production is likely to be sharply upward.

The excessive production of grapefruit which appears to be in prospect is largely brought about by the very heavy plantings of trees that has taken place in the lower Rio Grande Valley of Texas during the last 10 years. In this State only about 5 percent of the total bearing acreage is over 15 years old and Texas has about as much acreage of grapefruit as Florida. Plantings have been less during the depression years, but the present acreage is so large that plantings could stop entirely for several years and the production would still increase.

Even in Florida, where the industry is well established, only about 57 percent of the total acreage is in full production and only about 40 percent of the acreage in late varieties, which comes into strongest competition with the Texas production, has reached full bearing capacity.

Arizona has only about one-tenth as much acreage as Texas, but production in that State will increase sharply during the next 5 to 10 years because only around 8 percent of the trees have reached full bearing capacity.

There has been considerable pessimism among growers during the last few years, but the last crop, which was short, brought somewhat better prices, and this encouraged them somewhat. Nevertheless, with the tremendous increase that is likely to occur during the next 5 or 6 years it looks as though the producer of grapefruit will have to become reconciled to a permanently lower level of prices. Whether or not the present acreage will be sustained depends upon the economy of production. At best, some abandonment of acreage can be expected unless a sharp and sustained rise in purchasing power occurs or some new outlets for fruit can be found.



## Citrus fruit - 5.

Canning of grapefruit, both sections and juice, has been more successful than with other citrus fruits. The Florida production of the canned product nearly doubled between 1933-34 and 1934-35. The preliminary figure for last year is 4,010,272 cases of equivalent No. 2 cans. This is a reduction of about 31 percent, but it is still about 75 percent above the average pack for the 5 years 1929-33.

There is no series of pack statistics for States other than Florida. Last year all other States combined packed around half a million cases of hearts and juice. Growers have expected the packing plants to relieve the surplus. To the extent that canning simply lengthens the marketing season, this outlet will prove a relief during the season for marketing of fresh fruit. But there is some question as to how far canning can go before it has the further effect of reducing the demand for the fresh fruit. In other words, where the canned product comes in direct competition with fresh fruit some of the benefit from diverting to the canning plant will be lost.

The October 1 crop report indicated a probable crop of grapefruit of 27,603,000 boxes. This would be 49 percent larger than the crop marketed during the 1935-36 season and just about twice as large as the average for the 5 years 1928-32.

## Lemons

Within the next several years, if the growing conditions and summer temperatures are normal, increasing production of lemons will place such pressure on the domestic market for lemons that prices will probably decline, unless new types of outlets or foreign markets are developed.

Preliminary estimates place bearing acreage of lemons for 1936 at 43,600 acres, with about 16,100 acres not yet of bearing age. This represents an increase in bearing acres of about 7 percent over the 1935 acreage and less than 1 percent increase in the nonbearing acreage from a year ago.

Experience shows that high summer temperatures are associated with high prices for lemons. During the past seven seasons summer temperatures have averaged above normal in the principal markets for lemons. Should these temperatures in the future fall to normal or below, some reduction in lemon prices may be expected. The demand for lemons is such that with other influences eliminated, a given percentage increase in the supply marketed as lemons in this country brings a much greater decrease in the price and the gross income to the industry as a whole. Hence the necessity for stimulating new types of demand for lemons in the domestic market and expansion of the export markets.

Citrus fruit - 6.

Oranges - Bearing Acreage Estimated as of July, 1936 - Showing  
Percentage Distribution by Age Groups.

| Navel and Other Early Varieties |         |            |        |        |            |               |            |      |
|---------------------------------|---------|------------|--------|--------|------------|---------------|------------|------|
|                                 | Bearing | Age Groups |        |        |            | % not in full | % in full  |      |
|                                 | acres   | 6-10:      | 11-15: | 16-20: | 21 & over: | production    | production |      |
|                                 |         | %          | %      | %      | %          |               |            |      |
| California                      | 97,900  | 5.6        | 7.6    | 7.7    | 79.1       | 13.2          |            | 86.8 |
| Florida                         | 106,500 | 24.2       | 23.6   | 16.7   | 35.5       | 47.8          |            | 52.2 |
| Arizona                         | 1,385   | 43.2       | 13.2   | 13.9   | 29.7       | 56.4          |            | 43.6 |
| Texas (All)                     | 17,830  | 60.7       | 32.3   | 7.0    |            | 93.0          |            | 7.0  |
| Total                           | 223,615 | 15.5       | 15.9   | 12.4   | 56.2       | 31.4          |            | 68.6 |

| Valencia and Other Late Varieties |         |      |      |      |      |      |  |      |
|-----------------------------------|---------|------|------|------|------|------|--|------|
| /1                                |         |      |      |      |      |      |  |      |
| California                        | 128,200 | 24.8 | 15.8 | 16.4 | 43.0 | 40.6 |  | 59.4 |
| Florida                           | 86,700  | 28.7 | 32.7 | 23.1 | 15.5 | 61.4 |  | 38.6 |
| Arizona                           | 956     | 90.6 | 2.3  | 2.8  | 4.3  | 92.9 |  | 7.1  |
| Texas                             |         |      |      |      |      |      |  |      |
| Total                             | 215,856 | 26.7 | 22.5 | 19.0 | 31.8 | 49.2 |  | 50.8 |

| All Varieties |         |      |      |      |      |      |  |      |
|---------------|---------|------|------|------|------|------|--|------|
| /1            |         |      |      |      |      |      |  |      |
| California    | 226,100 | 18.3 | 13.0 | 13.4 | 55.3 | 31.3 |  | 68.7 |
| Florida       | 192,200 | 26.3 | 27.7 | 19.5 | 26.5 | 54.0 |  | 46.0 |
| Arizona       | 2,341   | 62.4 | 8.8  | 9.4  | 19.4 | 71.2 |  | 28.8 |
| Texas         | 17,830  | 69.7 | 32.3 | 7.0  |      | 93.0 |  |      |
| Total         | 439,471 | 22.2 | 19.7 | 16.2 | 41.9 | 41.9 |  | 58.1 |

/1 Age distribution in California is estimated on basis of past acreage records. These estimates are subject to revision when the 1936 survey records become available.

/2 Total acres of bearing trees in the U. S. is about 447,091 acres. In addition to that shown above there are about 8,620 acres of oranges in Alabama, Mississippi, and Louisiana. Most of the acreage in Alabama and Mississippi is Satsuma. The acreage in Louisiana is in the lower delta of the Mississippi and is mostly navel.

Grapefruit - Bearing Acreage Estimated as of July, 1936  
Showing Percentage Distribution by Age Groups.

| Early Varieties |         |      |       |       |      |   |   |   |
|-----------------|---------|------|-------|-------|------|---|---|---|
|                 | Bearing | 6-10 | 11-15 | 16-20 | 21+  |   |   |   |
|                 | Acres   | %    | %     | %     | %    | % | % | % |
| Florida         | 51,050  | 13.0 | 19.9  | 28.5  | 38.6 |   |   |   |
| Texas           | 7,886   | 54.9 | 35.5  | 9.6   |      |   |   |   |
| Arizona         | 118     | 17.0 | 8.5   | 27.1  | 47.4 |   |   |   |
| Total           | 59,054  | 18.6 | 22.0  | 59.4  |      |   |   |   |

  

| Late Varieties (Seedless) |        |      |      |      |      |  |  |  |
|---------------------------|--------|------|------|------|------|--|--|--|
| Florida                   | 28,700 | 31.0 | 29.0 | 25.5 | 14.5 |  |  |  |
| Texas                     | 59,150 | 66.0 | 29.4 | 4.5  |      |  |  |  |
| Arizona                   | 6,743  | 83.8 | 9.5  | 3.7  | 3.0  |  |  |  |
| Total                     | 94,593 | 56.8 | 27.8 | 15.4 |      |  |  |  |

  

| All Fruit |         |      |      |      |      |      |  |      |
|-----------|---------|------|------|------|------|------|--|------|
| Florida   | 79,750  | 19.5 | 23.2 | 27.4 | 29.9 | 42.7 |  | 57.3 |
| Texas     | 67,036  | 64.7 | 30.1 | 5.2  |      | 94.8 |  | 5.2  |
| Arizona   | 6,861   | 82.6 | 9.5  | 4.1  | 3.8  | 92.1 |  | 7.9  |
| Total     | 153,647 | 42.1 | 25.6 | 33.3 |      | 67.7 |  | 32.3 |

Total acreage of bearing trees in the United States is about 168,151 acres. The difference between the total for the three States is made up by 14,500 acres in California, about 10 acres in the Louisiana delta, and 4 acres in Alabama and Mississippi combined. No age classification for these trees is yet available and consequently is not included in the above table.

Citrus fruit - 3.

Oranges - Production and Average Price Received by Producers,  
1920-21 to 1935-36.

| Year    | P R O D U C T I O N |            |            |            | Farm price<br>per box<br>Dollars |
|---------|---------------------|------------|------------|------------|----------------------------------|
|         | California          | Florida    | All other  | Total      |                                  |
|         | 1000 boxes          | 1000 boxes | 1000 boxes | 1000 boxes |                                  |
| 1920-31 | 22,547              | 9,457      | 209        | 32,213     | 2.25                             |
| 1921-22 | 13,921              | 8,871      | 242        | 23,034     | 3.07                             |
| 1922-23 | 21,286              | 10,897     | 380        | 32,563     | 2.26                             |
| 1923-24 | 24,324              | 13,262     | 447        | 38,033     | 1.92                             |
| 1924-25 | 18,535              | 11,639     | 149        | 30,323     | 3.34                             |
| 1925-26 | 24,200              | 10,344     | 353        | 34,897     | 2.85                             |
| 1926-27 | 28,167              | 11,512     | 383        | 40,062     | 2.84                             |
| 1927-28 | 22,737              | 9,933      | 484        | 33,154     | 3.76                             |
| 1928-29 | 38,994              | 15,116     | 549        | 54,659     | 2.01                             |
| 1929-30 | 21,483              | 10,304     | 834        | 32,621     | 3.51                             |
| 1930-31 | 35,470              | 19,211     | 589        | 55,270     | 1.63                             |
| 1931-32 | 34,900              | 14,280     | 1044       | 50,164     | 1.32                             |
| 1932-33 | 34,265              | 16,200     | 903        | 51,368     | 1.09                             |
| 1933-34 | 28,439              | 18,100     | 750        | 47,289     | 1.59                             |
| 1934-35 | 46,086              | 17,600     | 1251       | 64,937     | 1.36                             |
| 1935-36 | 33,303              | 18,000     | 1254       | 52,557     | 1.92                             |

Grapefruit - Production and Average Price Received by Producers,  
1920-21 to 1935-36

| Year    | P R O D U C T I O N |            |              |            | Farm price<br>per box<br>Dollars |
|---------|---------------------|------------|--------------|------------|----------------------------------|
|         | Florida             | Texas      | Calif.&Ariz. | Total      |                                  |
|         | 1000 boxes          | 1000 boxes | 1000 boxes   | 1000 boxes |                                  |
| 1920-21 | 6,142               |            | 429          | 6,571      | 2.17                             |
| 1921-22 | 6,644               |            | 395          | 7,039      | 2.11                             |
| 1922-23 | 7,766               | 35         | 454          | 8,255      | 1.84                             |
| 1923-24 | 8,936               | 65         | 458          | 9,459      | 1.27                             |
| 1924-25 | 8,760               | 211        | 492          | 9,463      | 1.61                             |
| 1925-26 | 8,316               | 200        | 750          | 9,266      | 2.57                             |
| 1926-27 | 8,693               | 361        | 792          | 9,846      | 1.86                             |
| 1927-28 | 8,158               | 524        | 896          | 9,578      | 2.78                             |
| 1928-29 | 11,314              | 753        | 1183         | 13,250     | 1.67                             |
| 1929-30 | 8,274               | 1530       | 1365         | 11,169     | 2.41                             |
| 1930-31 | 16,109              | 1135       | 1690         | 18,934     | 1.20                             |
| 1931-32 | 10,786              | 2480       | 1881         | 15,147     | 1.03                             |
| 1932-33 | 11,800              | 1385       | 1964         | 15,149     | .84                              |
| 1933-34 | 10,700              | 1130       | 2413         | 14,243     | 1.12                             |
| 1934-35 | 15,200              | 2750       | 3407         | 21,357     | .83                              |
| 1935-36 | 11,500              | 2741       | 4275         | 18,516     | 1.17                             |

Source: 1936 Agricultural Statistics, page 131, table 180.



## THE APPLE OUTLOOK FOR 1937

### Summary

Total apple production in the United States is expected to average somewhat higher during the coming 5 years than the average of the last 5 seasons (1932-36). This conclusion is based upon the belief that average growing conditions during the coming 5 years will be better than during the last 5 seasons, when production was greatly restricted because of adverse growing conditions during the 1934 and 1936 seasons. From a longer time viewpoint, however, the general trend in production is expected to be downward at a slow rate, unless tree replacements and new plantings are increased somewhat over those of the last several years. Even with some increase in average production, the average price to growers for the next 5 years probably will be somewhat higher than the average of the last 5 seasons, because of increased consumer buying power.

Present indications (October) are for an unusually small apple crop in 1936, and prices to growers for the 1936 crop probably will average higher than for any season in several years.

The producing capacity of the apple industry has been scaled down to a point at which production, on the average, is lower than at any time following the tremendous expansion of more than 25 years ago. During this period millions of trees were removed. The number of trees now in apple orchards is probably not greatly in excess of 95,000,000 compared with 116,300,000 trees in 1930, and 217,100,000 trees in 1910. Since new plantings for several years have been very light, a further decrease in tree numbers is to be expected.

Because of unfavorable growing conditions, the indicated crop for 1936 of 105,000,000 bushels is the smallest crop produced since 1921. Likewise, the severe freeze during the winter of 1933-34 was largely responsible for an unusually small crop in 1934. Consequently, average production during the last 5 years, 1932-36, will be only about 135,300,000 bushels compared with an average production of 156,300,000 bushels during the previous 5 years. Although this decrease in production of 25,000,000 bushels, or 13 percent, indicates what has actually happened, it does not indicate the true downward trend in the producing capacity of the apple industry. With average growing conditions during both periods the decrease in production would have been only about 10,000,000 bushels, or 6 percent.

That the general trend in production is expected to continue downward is borne out by the fact that in 1935, a smaller proportion of the trees in orchards were yet to come into bearing than at any time for which data are available in the last 25 years, and to the further fact that the average yield per bearing tree, which has been increasing since 1910 because of the removal of many low producing trees and because of an increase in age of many young trees, has about reached a stationary level. However, the general downward trend in production is expected to be at a slow rate of decrease, since many of the trees removed from commercial and farm orchards in the

scaling-down process were low producers. This has tended to place greater emphasis upon commercial production as against general farm production and to cause a greater concentration of orchards in the better producing districts. It is also probable that as economic conditions improve many orchards will receive better care than they have had in the last several years.

In the western Pacific Coast and Rocky Mountain States the peak of production apparently has been passed for the present cycle, and the general trend is expected to continue slightly downward. In the Central States, where frost hazards cause tremendous variations in the size of the crops, many commercial plantings were made soon after the close of the World War. Increasing production from these plantings probably will about offset declining production from the many farm orchards in the region, assuming average growing conditions. In the Eastern States, winter killing of trees since 1933 has decreased the potential bearing capacity of orchards by about 2 to 3 percent. Removal of unprofitable farm orchards continues, with good producing commercial orchards receiving good care. On the whole, the number of trees yet to come into bearing is not sufficient to maintain the present number of trees of non-bearing age.

In 1934 and 1936 growing conditions in the Eastern States were considerably below average. The short crops of these 2 years were largely responsible for a decrease of 14 percent in average production during the period 1932-36 as compared with 1927-31. With average growing conditions in both periods, the decrease would have been substantially less. Thus, with average growing conditions during the next 5 years production in the Eastern States may average somewhat higher than average production during the 5 years, 1932-36. From a longer time viewpoint the general trend in production is expected to be downward at a slow rate.

Average world production of apples is about 500,000,000 bushels per year. The 1936 world crop is now estimated at between 420,000,000 and 450,000,000 bushels. The exceedingly short crop in the United States, and less-than-average production in the world as a whole, indicate that 1936 average prices to growers in the United States will be considerably higher than average prices in 1935. Average prices on September 15 of this year were 80 cents per bushel compared with 69 cents in September 1935. Only in the Western States were prices relatively low on September 15. In these States the September price was only 64 cents in 1936, and 67 cents in 1935. However, indications are that there has been a substantial strengthening in prices for western apples since September 15, and it is quite probable that average prices to growers for the Western crop of 1936 will be substantially higher than the average price for the 1935 crop.

During the last year worthwhile concessions were secured for fresh apples in a number of instances where trade agreements were signed, but trade barriers continue to be a serious handicap to the normal flow of apples from the United States.

Foreign countries continue to work toward increased production and improved quality of apples at home, indicating that exporters of apples from the United States may expect increased competition in foreign markets.

## Tree Numbers Continue to Decrease

On January 1, 1935, there were, in the United States, only about 100,000,000 apple trees of all ages, as compared with 217,000,000 trees in 1910. During this 25-year period, the net decrease in tree numbers amounted to about 117,000,000, or 54 percent of the number reported in 1910. Each year, on the average, the decrease has amounted to about 4,700,000 trees.

These tremendous reductions are the results of an effort to correct an undesirable economic situation in the apple industry brought on, in part, by gross overplanting for several years previous to 1912. They have changed materially the general character of the industry, by eliminating many unproductive commercial and farm orchards, and by causing a concentration of orchards in the better producing districts. Trees of the more popular varieties have replaced many trees of some of the older and less popular varieties. On the whole, the industry has been scaled down until total production is at the lowest level in more than 25 years.

In 1920, 1925, and 1930, about 24 percent of all apple trees were not of bearing age, and with this proportion of young trees, total tree numbers declined annually at an average of about 3,500,000 trees. By 1935, the number of trees not of bearing age had dropped to 17.5 percent of the total, and during the 5 years previous to 1935, total tree numbers decreased at an average of 3,260,000 trees annually. The later period, 1930-34, was one of unfavorable economic conditions, and of unusual droughts and severe freezes. During these 5 years perhaps as many as 3,500,000 trees were killed by drought and cold weather, and many others were so severely damaged that their productive life was shortened materially.

Table 1.-Total number of apple trees of all ages, of bearing age, and of non-bearing age, by census years for which data are available <sup>1/</sup>

| Year | All<br>ages | Bearing<br>age | Not<br>of<br>bearing<br>age | Percentage<br>of<br>bearing<br>age | Percentage<br>not of<br>bearing<br>age |
|------|-------------|----------------|-----------------------------|------------------------------------|--|
|      | Millions    | Millions       | Millions                    | Percent                            | Percent                                |
| 1910 | 217.1       | 151.3          | 65.8                        | 69.7                               | 30.3                                   |
| 1920 | 151.5       | 115.3          | 36.2                        | 76.1                               | 23.9                                   |
| 1925 | 138.0       | 103.7          | 34.3                        | 75.1                               | 24.9                                   |
| 1930 | 116.3       | 88.8           | 27.5                        | 76.4                               | 23.6                                   |
| 1935 | 100.0       | 82.5           | 17.5                        | 82.5                               | 17.5                                   |

<sup>1/</sup> U. S. Bureau of the Census figures rounded to one-tenth million.

No definite figures are available as to the number of apples trees in 1936 but the relatively small number of trees in 1935 that were not of bearing age indicates that tree numbers are still declining. Perhaps the total number now in orchards (November, 1936) does not greatly exceed 95,000,000 trees. Of the bearing trees, a relatively large proportion has reached full-bearing capacity, and may be expected to decline in productivity in the near future. Tending to offset this decline is the production from another large body of trees that were planted soon after the World War, which will be close to



full-bearing capacity in about 8 to 10 years from now. Increased production from this younger group of trees probably will not offset decreased production from the older group, considering tree removals and plantings of the last several years.

#### Production and Prices

During the 5-year period, 1931-35, apple production averaged annually about 155,000,000 bushels. Present indications (October) are for a crop of about 105,000,000 bushels in 1936. If this production is realized, the average for the last 5 years, 1932-36, will amount to about 135,300,000 bushels, or 13 percent less than average production for the previous 5 years, 1927-31. However, because of severe droughts, freezes, and frost conditions, growing conditions were considerably below average during the period 1932-36. With average growing conditions during both periods, production would have been only about 6 percent less in the last 5 years than in the previous 5 years. Thus, allowing for variations in growing conditions, the producing capacity of all orchards appears to be declining at an average rate of about 1.2 percent a year.

Table 2.-Actual total apple production and estimated production with average growing conditions, yearly averages by 5-year periods

| Total production        | 1912-16 | 1917-21 | 1922-26 | 1927-31 | 1932-36 |
|-------------------------|---------|---------|---------|---------|---------|
|                         | Million | Million | Million | Million | Million |
|                         | bushels | bushels | bushels | bushels | bushels |
| Actual                  | 211.0   | 156.0   | 182.0   | 156.3   | 135.3   |
| Estimated with average: |         |         |         |         |         |
| growing conditions      | 190.3   | 167.4   | 154.0   | 161.2   | 151.3   |

Because of an increase in the average yield per bearing tree, apple production has decreased much less than has the number of apple trees of bearing age. Allowing for variations in growing conditions, average yield per bearing tree increased approximately 43 percent from 1910 to 1935, and during the last 5 years would average about 1.83 bushels per bearing tree, under average growing conditions. The actual yield during this period was about 1.64 bushels per bearing tree, compared with 1.02 bushels in 1910. The large increase in yield per bearing tree was due primarily to an increase in the bearing surface of trees as they increased in age, and to the fact that many low-producing trees were removed. Since many of the bearing trees now in orchards have reached, or soon will have reached, full-bearing capacity, there is not likely to be any further appreciable increase in yield per bearing tree, assuming average growing conditions.

Table 3.-Actual yield of apples per bearing tree, and estimated yield with average growing conditions 1/

| Yield per bearing tree  | 1910    | 1915 2/ | 1920    | 1925    | 1930    | 1935    |
|-------------------------|---------|---------|---------|---------|---------|---------|
|                         | Bushels | Bushels | Bushels | Bushels | Bushels | Bushels |
| Actual                  | 1.02    | 1.49    | 1.35    | 1.76    | 1.76    | 1.64    |
| Estimated with average: |         |         |         |         |         |         |
| growing conditions      | 1.28    | 1.34    | 1.45    | 1.49    | 1.82    | 1.83    |

1/ Obtained by dividing 5-year average total production of apples by number of apple trees of bearing age. The 5-year averages for production are shown in table 2.

2/ To obtain "actual" yield per bearing tree, the number of trees of bearing age were estimated.



As the number of trees of bearing age probably will continue to decrease during the next several years, and as there is likely to be no large increase in yield per bearing tree, the general trend in total production probably will continue downward at a slow rate. It now appears that, with average growing conditions, the total apple crop will average during the next 5 years between 140,000,000 and 145,000,000 bushels. This volume would be about 7 to 10 percent less than the actual volume of production during 1927-31, but owing to the short crops of 1934 and 1936 when growing conditions were unusually adverse, it would be somewhat higher than the average for the last 5-year period, 1932-36. Thus, while the general downward trend in production is expected to continue, average production during the next 5 years probably will be somewhat above the unusually low average production of the last 5 years.

Apple prices declined sharply from 1929 to 1932, largely because of declining consumer buying power. Prices advanced from an average of 62 cents per bushel to the grower for the 1932 crop to 73 cents for the 1933 crop, although there was little difference in supplies during the 2 years. Owing largely to a further increase in consumer buying power and to the relatively small crop of 1934, prices increased substantially. With the large crop of 1935 prices again receded, but the price recession below the 1934 average was only 19 percent whereas the increase in production was 38 percent. Prospective production for 1936 indicates the smallest crop since 1921, and, with the exception of 1934, average prices for the United States on September 15, are well above the September price of any year since 1930. This is due to the relatively favorable prices of apples in the Eastern and Central States. In the Western States, prices to growers on September 15, 1936 were about the same as a year earlier, and, with the exception of 1932, were below those of any other year since 1930. However, judging from prices received on the New York auction, there has been a material strengthening in prices for Western apples since September 15, and it is believed that the average price to growers for the Western crop of 1936 will average well above the average for 1935. For the country as a whole, it seems probable that the average 1936 price to growers will be above \$1 per bushel.

Table 4.-Average prices of apples to growers by regions and years

| Region                | 1925-<br>29 | 1930   | 1931   | 1932   | 1933   | 1934   | 1935   | 1936   |
|-----------------------|-------------|--------|--------|--------|--------|--------|--------|--------|
|                       | Dolls.      | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. |
| United States         |             |        |        |        |        |        |        |        |
| Crop year             | 1.20        | 1.02   | 0.65   | 0.62   | 0.73   | 0.88   | 0.71   | -      |
| Sept. 15              | 1.12        | 1.03   | .71    | .57    | .73    | .82    | .69    | 0.80   |
| Atlantic Coast States |             |        |        |        |        |        |        |        |
| Crop year             | 1.19        | 1.04   | .64    | .65    | .75    | 1.00   | .78    | -      |
| Sept. 15              | 1.16        | .98    | .72    | .58    | .73    | .90    | .71    | .91    |
| Central States        |             |        |        |        |        |        |        |        |
| Crop year             | 1.29        | 1.34   | .64    | .71    | .79    | .99    | .74    | -      |
| Sept. 15              | 1.15        | 1.24   | .57    | .59    | .73    | .92    | .69    | 1.00   |
| Western States        |             |        |        |        |        |        |        |        |
| Crop year             | 1.17        | .89    | .69    | .54    | .67    | .73    | .60    | -      |
| Sept. 15              | 1.11        | .96    | .76    | .56    | .72    | .72    | .67    | .64    |

Separate prices to growers for late and for early apples are not available, but it is known that producers of early apples have had difficulty in marketing at satisfactory prices several of the crops produced during the last 6 or 7 years. A survey of commercial apple orchards as of January 1, 1928 showed that about 40 percent of the apple trees of the early varieties in the 10 States leading in early apple production were less than 9 years of age. Because of low returns to producers of early apples, the producing capacity of early apple orchards has been reduced somewhat in recent years by the removal of trees and neglect of orchards, but, even so, it is believed that the supply of early apples will continue plentiful for several years. The leading early apple-producing States are California, Illinois, Delaware, Tennessee, and New Jersey.

### Regional Production Prospects

Western States. - During the 5 years, 1932-36, the 11 Pacific Coast and Rocky Mountain States produced 51,400,000 bushels of apples per year, or nearly 38 percent of the United States total. They produced a higher proportion, about 44 percent of the commercial crop of the country. About 25 years ago this group of States produced less than 10 percent of total production. During the last 5 years low returns have resulted in noticeable neglect and removal of trees in the poorer apple districts of these States. Only the better commercial orchards in the better districts have been well cared for. Plantings have been light and removals have been confined largely to orchards on poor locations, to trees of unpopular varieties, to old trees, and to trees that are too closely set, considering their present size. For the region as a whole, production during the last 5 years, 1932-36, has averaged 10 percent below average production in the previous 5 years.

Table 5.-Average yearly production of all apples by 5-year periods, number of trees of bearing age, and average yield per bearing tree in the Western States

| Item  | :<br>:1907-11: | :<br>:1912-16: | :<br>:1917-21: | :<br>:1922-26: | :<br>:1927-31: | :<br>:1932-36 |
|---|----------------|----------------|----------------|----------------|----------------|---------------|
| Production - millions of bushels:                     | 15.1           | 25.3           | 42.8           | 54.5           | 56.9           | 51.4          |
| Proportion of U. S. crop percent:                     | 9.8            | 12.0           | 27.5           | 29.9           | 36.4           | 37.9          |
| Number of bearing trees <u>1/</u> millions:           | 12.1           | <u>2/</u>      | 21.2           | 18.3           | 13.4           | 11.6          |
| Proportion of trees of bearing age <u>1/</u> percent: | 45.0           | <u>2/</u>      | 87.2           | 87.2           | 86.6           | 87.8          |
| Average yield per bearing tree <u>3/</u> bushels:     | 1.25           | <u>2/</u>      | 2.02           | 2.98           | 4.25           | 4.45          |

1/ For census years, 1910, 1920, 1925, 1930, and 1935.

2/ Not available.

3/ Obtained by dividing average total production for each 5-year period by number of trees of bearing age in corresponding census year.

In Washington, production of the Winesap and Stayman Winesap is expected to change little during the next few years. Production of Delicious will continue to increase for several years. In California, production of the

Gravenstein appears to have about reached the peak; production of late apples probably will continue to decline at a slow rate. In Oregon, production probably will tend downward during the next several years. In the eight Mountain States as a group, production is expected to continue downward.

In the 11 Western States as a whole, a relatively small percentage of the trees are yet to come into bearing, and a relatively large percentage of the acreage has reached full bearing capacity. Yield per bearing tree is nearly 3.6 times what it was in 1910, but has averaged only slightly higher during the last 5 years than during the previous 5 years. Under average growing conditions production may continue slightly downward during the next several years.

Central States. - Average production of the last 5 years in the Central States was only about one-third of the peak years, 1912-16. This decrease of almost 59,000,000 bushels in 20 years accounts for about 73 percent of the total decrease in production in the United States, and was accompanied by a tremendous decrease in the number of apple trees in the region. The decrease in production of nearly 20 percent during the last 5 years, as compared with the previous 5 years, is due largely to unfavorable growing conditions in 1936 resulting in an indicated production of only 16,600,000 bushels, which is only slightly more than one-half of average production for the previous 4 years.

Table 6.-Average yearly production of all apples by 5-year periods, number of trees of bearing age, and average yield per bearing tree in the Central States

| Item                                  | : 1907-11:     | : 1912-16: | : 1917-21: | : 1922-26: | : 1927-31: | : 1932-36 |
|---------------------------------------|----------------|------------|------------|------------|------------|-----------|
| Production - millions of bushels:     | 58.9           | 87.4       | 44.7       | 52.2       | 35.4       | 28.7      |
| Proportion of U. S. crop              | percent: 38.3  | 41.4       | 28.6       | 28.7       | 22.6       | 21.2      |
| Number of bearing trees 1/            | millions: 90.0 | 2/         | 49.2       | 40.4       | 34.6       | 34.1      |
| Proportion of trees of bearing age 1/ | percent: 73.2  | 2/         | 74.9       | 69.4       | 69.7       | 79.1      |
| Average yield per bearing tree 3/     | bushels: .65   | 2/         | .91        | 1.29       | 1.02       | .84       |

1/ For census years, 1910, 1920, 1925, 1930, and 1935.

2/ Not available.

3/ Obtained by dividing average total production for each 5-year period by number of trees of bearing age in corresponding census year.

The region as a whole is subject to frequent frosts and freezes, and many of the early plantings were on unfavorable locations and have been removed. Thus, from 1910 to 1935, the decrease in the number of apple trees in the Central States amounted to about 79,800,000 trees or 65 percent. Many of the trees now in orchards in the Central States were planted since the World War, and a relatively large proportion are young, and probably located on more suitable sites than were many of the earlier plantings. With average weather conditions, commercial production for the region as a whole can be maintained, and probably increased, with moderate annual plantings.



However, the continued tendency to allow the many farm orchards of the region to deteriorate may offset any increased production from commercial orchards, until prices of apples become more attractive.

Eastern States. - During the 5 years, 1932-36, the Eastern States - which include the New England, the Middle Atlantic, and the South Atlantic States - produced about 55,400,000 bushels of apples per year, or 14 percent less than average production during the previous 5 years. However, production conditions in 1936 were considerably below average, resulting in one of the smallest crops in many years. With an average crop in 1936 the decrease in production mentioned above would have been considerably less - perhaps not over 8 percent.

Table 7.-Average yearly production of all apples by 5-year periods, number of trees of bearing age, and average yield per bearing tree in the Eastern States

| Item   | : 1907-11:     | : 1912-16:  | : 1917-21: | : 1922-26: | : 1927-31: | : 1932-36 |
|--|----------------|-------------|------------|------------|------------|-----------|
| Production - millions of bushels:            | 79.9           | 98.4        | 68.3       | 75.2       | 64.1       | 55.4      |
| Proportion of U. S. crop                     | percent: 51.9  | : 46.6      | : 42.9     | : 41.4     | : 41.0     | : 40.9    |
| Number of bearing trees <u>1/</u>            | millions: 49.2 | : <u>2/</u> | : 44.9     | : 45.0     | : 40.9     | : 36.8    |
| Proportion of trees of bearing age <u>1/</u> | : 73.2         | : <u>2/</u> | : 73.1     | : 76.6     | : 79.8     | : 84.2    |
| Average yield per bearing tree <u>3/</u>     | bushels: 1.62  | : <u>2/</u> | : 1.52     | : 1.67     | : 1.57     | : 1.51    |

1/ For census years, 1910, 1920, 1925, 1930, and 1935.

2/ Not available.

3/ Obtained by dividing average total production for each 5-year period by number of trees of bearing age in corresponding census year.

Nearness to large consuming centers gives the Eastern apple growers a decided economic advantage. Consequently many of the better orchards have received very good care in recent years. On the other hand, generally low producing commercial orchards have been neglected during the depression years, and farm orchards have continued to decrease in number. The unusual freeze during the winter of 1933-34 also helped to decrease the potential bearing capacity of many orchards of bearing age. As a result of this freeze and the severe winter of 1934-35 about 2,500,000 trees in New York and New England were killed, and production in these States averaged only 18,800,000 bushels during the 2 crop years 1934 and 1935, as compared with an average production during the 7 years, 1927-33 of 25,300,000 bushels per year. Many more bearing trees, especially of the Baldwin variety, were so severely injured by the freeze that their productive life has been shortened substantially. However, decreasing production from these trees probably will be more than offset by increasing production from young trees of the McIntosh variety.

Thus, a large part of the decrease in production in the last few years represents a definite and permanent scaling down of the apple industry of New York and the New England States; but it does not indicate that with average growing conditions production in the Eastern States will continue to



decline at as great a rate during the next few years as it has since 1933. From a longer viewpoint, the potential bearing capacity of orchards in the region probably will decline at a moderate rate, since a relatively large part of the trees are close to full-bearing capacity, and since a larger proportion than at any time since 1910 are of bearing age.

#### Export Markets

The total 1936 world apple crop is below average and will probably be between 420,000,000 and 450,000,000 bushels. Owing largely to unfavorable growing conditions, the 1936 commercial apple crop of 65,500,000 bushels in the United States is the smallest on record. The crop in Great Britain, the major importing country, is expected to be considerably larger than the small crop of 1935. In most other European countries, the 1936 crop will be smaller than that of 1935. Judging by exports in past years of small crops, there probably will not be over 8,000,000 bushels of apples available for export during 1936-37 (July to June). Indications are that Canada will have an apple crop of about 13,000,000 bushels, which will provide export supplies of about 7,000,000 bushels. Thus, the total export supplies from North America in 1936 probably will not exceed 15,000,000 bushels compared with actual exports of 18,900,000 bushels in 1935-36, and slightly over 20,000,000 bushels per year in the 5-year period, 1930-31 to 1934-35.

Although trade barriers continue to be a handicap to our apple export trade with some countries, reductions in duties on apples ranging from 25 to 75 percent were made in six of the 14 trade agreements concluded to date. In six other countries with which agreements have been concluded, existing low duties were guaranteed against any increase for the duration of the agreement. Under the agreement with France an increase in the French apple and pear import quota offers an additional outlet for about 617,000 bushels of American apples and pears, and in the Swiss agreement a quota of approximately 106,000 bushels of apples and pears was secured. Countries with which agreements have been concluded took about 40 percent of the United States apple exports in the 1934-35 season.

Any appraisal of the export situation for 1936-37 must take into account the devaluation and realignment of the currencies of a number of European countries. In many cases monetary devaluation has been accompanied by a reduction in duties, in terms of currencies of the importing countries, and in other import restrictions in an attempt to counteract the tendency of devaluation to cause a rise in the cost of imported products. The success of this attempt will influence to a considerable extent the quantity of fruit that can be sold to them in the coming year. If in the long run, as recent developments indicate, devaluation is followed by restoration of stable exchange rates and increased purchasing power in the importing countries, the effects should be of benefit to American apple exporters.

World apple production is on a slightly upward trend. Improvements are being made in cultural and marketing practices in most apple-growing countries, with the result that the rate of increase in the production of

dessert apples is much more rapid than the rate of increase in the total production. The average world production is roughly 500,000,000 bushels, of which about 18 percent is produced in the United States. Because of the increase in the production and the improvement in the quantity of dessert apples, competition will be keener in the export markets in the future. This competition can be successfully met only by maintaining high export standards. Low-quality apples are not wanted in foreign markets and the export of large quantities of such fruit adversely affects the price of all apples.

About 16 percent of the commercial apple crop of the United States was exported, on an average, during the last 10 years. Although the total exports and the proportion of the crop exported have been declining since the depression, the export market is still the most profitable outlet for small apples in general as well as certain varieties of apples, such as Yellow Newtown, Ben Davis, and York Imperial.

## THE PEACH OUTLOOK FOR 1937

### Summary

In the next 5 years average peach production in the United States is likely to be near the average of the last 5 years. The anticipated production of peaches for market as fresh fruit, under average growing conditions, will not result in burdensome market supplies.

The number of peach trees of both bearing and nonbearing age in the United States declined considerably from 1930 to 1935, according to census figures. Large numbers of diseased or injured trees have been removed during the last 2 seasons. In some of the important commercial areas relatively large numbers of trees are past the age of maximum productivity. These factors by themselves would indicate a downward trend in peach production in the next 5 years. However, it is probable that their effect will be approximately offset by the relatively large plantings in 1935 and 1936, the anticipated heavy plantings in the next few years, the generally good care orchards are receiving, and the fact that peach-growing conditions for the country as a whole are likely to average above those of 1932-36 since in each of these years they were below the 10-year average (1923-32).

From 1930 to 1935 the number of peach trees in the United States declined from 79,000,000 to 67,000,000 approximately, and bearing trees from 59,000,000 to 54,000,000. The proportion of trees not of bearing age declined from 25 percent to 19 percent of the total. This proportion of young trees is hardly sufficient to prevent further reduction in number of trees over a period of years. Production in 1932-36 averaged about 46,000,000 bushels compared with 56,000,000 bushels in the preceding 5 seasons. The number of farms reporting peach trees in the census was about the same in 1935 as in 1930 for the United States, but in a number of regions there were considerable changes.

In the Southern States, which are the principal source of fresh peach supply from June to the first part of August, average production from 1932-36 was about 18 percent below that of 1927-31. The 1935 census showed a considerable decrease in number of trees both of bearing age and those not yet of bearing age. Many of the bearing trees are past the age of maximum productivity, but increases in plantings in 1935 and 1936 and the fact that orchards are being well cared for will probably prevent any further material decrease in average production in the South.

In each of the other leading regions producing peaches for market as fresh fruit there was a decline in tree numbers from 1930 to 1935, and in the proportion of trees that had not yet come into bearing. Increased plantings in 1935 and 1936 and anticipated plantings in 1937 are likely to prevent any considerable decline in number of bearing trees in the next 5 years. Slightly downward trends in number of bearing trees in some States or districts may be approximately offset by upward trends in others.



## Peaches - 2.

In California there has been a considerable decline in bearing acreage of clingstone peaches since 1930 but there has been only a moderate reduction in the bearing acreage of freestone varieties. Plantings of both clingstone and freestone varieties since 1930 have been moderate although in the last year or two plantings have increased. Not much change in the trend of clingstone production is expected in the next 5 years since adjustment through tree removals to a reduced level of production has already been made. The trend in freestone production may be slightly downward. California peach prices have improved materially since 1932.

The anticipated production of peaches for market as fresh fruit under average growing conditions will not result in burdensome market supplies. The average of seasonal farm prices of peaches for the United States in 1932-36 was 79 cents per bushel. For California, the average was 54 cents, and for the United States other than California it was \$1.01. Since 1932 the average farm price of peaches for the country as a whole has been more favorable to growers than the average price of all farm products when compared with prices farmers pay. No sharp increase in production of other deciduous summer fruits is in prospect and in view of the probable increase in consumer buying power in the next few years prices to growers for fresh peaches are expected to remain favorable except in years when growing conditions are considerably above average.

Although the prospects for peach production and marketing for the next 5 years are generally favorable, the outlook from 5 to 15 years hence when trees planted near the present time will produce most of their fruit is dependent on various factors. These include the number of trees planted in the next 5 or 10 years, damage to trees from disease or other causes, general demand conditions and competition of other fruits. At this time growers should recognize the danger of over-expansion of the industry. In the past, periods of profitable prices have often so stimulated planting that overproduction in some districts and severe losses to growers resulted. In these periods of overexpansion, orchards have frequently been set on sites and under conditions unsuited to peach growing.

### Regional Prospects Vary

Peaches are produced largely for market as fresh fruit except in California where a large part of the crop is canned or dried. In the United States, exclusive of California, the number of peach trees and the proportion not yet of bearing age declined sharply from 1920 to 1935, but because of the generally good care of orchards at present, the increase in rate of planting in 1935 and 1936 and the fact that peach growing conditions for the region as a whole in each of the last 5 years have been below the 10-year average (1923-32), it is probable that average production will not decline much below the 1932-36 level.



### Peaches - 3.

#### Number of trees and production in the United States other than California

| Item                                    | : 1920 : | 1925 : | 1930 : | 1935 |
|---|----------|--------|--------|------|
| Number of trees (millions)              | : 76.8 : | 75.9 : | 67.2 : | 58.2 |
| Proportion not of bearing age (percent) | : 26 :   | 1/ :   | 28 :   | 21   |
| Average production (million bushels) 2/ | : 27.6 : | 35.5 : | 33.0 : | 25.3 |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

Peach production is subject to wide fluctuations from year to year, so that in any year when growing conditions are favorable, production may be far above the average. Price-supply relationship over a period of years indicates that a crop considerably above the 1932-36 average in the United States, exclusive of California, is likely to have a higher farm value than a smaller quantity. As a whole, production in the region which supplies fresh peaches for market, even in years of slightly better-than-average growing conditions, is not likely to be in excess of market requirements in the next 5 years.

Since peaches for market as fresh fruit are stored only in limited quantities and for short periods, the outlook must be considered by regions in accordance with the harvesting period and the area in which the crop is marketed. Prices in any region are influenced to some extent by the size of the crops in competing regions.

The Southern States supply most of the peaches for market from June till early in August. The 1935 census shows that both the number of trees and proportion that had not reached bearing age in 11 Southern States declined since 1930.

#### Number of trees and production in 11 Southern States: (N. C., S. C., Ga., Fla., Tenn., Ala., Miss., Ark., La., Okla., Texas)

| Item                                    | : 1920 : | 1925 : | 1930 : | 1935 |
|---|----------|--------|--------|------|
| Number of trees (millions)              | : 37.7 : | 38.4 : | 31.9 : | 28.2 |
| Proportion not of bearing age (percent) | : 27 :   | 1/ :   | 23 :   | 19   |
| Average production (million bushels) 2/ | : 14.4 : | 17.4 : | 16.3 : | 13.4 |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

Considering the probable life of peach trees in the South and the age at which they come into bearing, it seems that the proportion of trees reported in the census as not yet of bearing age is hardly sufficient to maintain the present number of bearing trees. This is particularly true since a relatively large number of commercial trees in some of the leading Southern States were planted prior to 1924 and are rapidly declining in productivity. In some districts in the South there has been considerable tree injury from various causes and many trees have been removed in the last year or two. However, southern commercial orchards are reported to be receiving good care. Plantings are reported to have been considerably greater in 1935 and 1936 than in the 2 preceding years. It seems probable that average production in the South will be maintained near the 1932-36 average of 13,400,000 bushels. In seasons of good growing conditions, the crop may be considerably in excess of this quantity. Indications are that a southern crop of roughly 15,000,000 to 17,000,000 bushels would usually have a higher farm value than a smaller crop.

Peaches - 4.

Peach production prospects vary considerably throughout the South. In the important district of southern Georgia plantings in the last few years have been heavy. This is also true of western South Carolina, North Carolina, Alabama and various other districts. On the other hand, in the important middle Georgia district, plantings have scarcely equalled tree removals. In northern Georgia the production trend is definitely downward. In Tennessee, where plantings have been light, there has been considerable abandonment and removal of trees. Interest in new plantings is reported in eastern Arkansas, northeastern Texas, and northern Louisiana. Recent plantings in southern Georgia are largely of the Hiley variety with some earlier maturing varieties. Plantings in South Carolina are reported to be mostly Elberta.

In August, Illinois and nearby States are usually an important source of peach supply in middle western markets. In 7 States in this region tree numbers declined nearly one-fourth from 1925 to 1935 only 18 percent of the trees had not reached bearing age in 1935 compared with 31 percent in both 1920 and 1930.

Number of trees and production in Ind., Ill., Ky., Iowa, Mo., Nebr., and Kans.

| Item                                    | : 1920 | : 1925 | : 1930 | : 1935 |
|---|--------|--------|--------|--------|
| Number of trees (millions)              | : 10.2 | : 12.3 | : 11.7 | : 9.5  |
| Proportion not of bearing age (percent) | : 31   | : 1/   | : 31   | : 18   |
| Average production (million bushels) 2/ | : 1.9  | : 4.1  | : 4.1  | : 2.3  |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

The number of young trees is hardly sufficient to maintain the present number in bearing. Average production in 1932-36 of 2,300,000 bushels was considerably below that of the two previous 5-year periods. Indications are that a crop of roughly 5,000,000 bushels would usually have a greater farm value than a smaller crop. Crop failures or short crops occur frequently in this region, resulting in low average production. Because of the hazards of production growers should carefully consider the factors of site, management, and varieties before setting out new orchards.

The number of peach trees in the group of States consisting of Pennsylvania, Maryland, Virginia, West Virginia, New Jersey, and Delaware, has declined from over 14,000,000 in 1920 to less than 9,000,000 in 1935.

Number of trees and production in Pa., Md., Va., W.Va., N. J., and Del.

| Item                                    | : 1920 | : 1925 | : 1930 | : 1935 |
|---|--------|--------|--------|--------|
| Number of trees (millions)              | : 14.5 | : 11.7 | : 10.4 | : 8.7  |
| Proportion not of bearing age (percent) | : 27   | : 1/   | : 28   | : 25   |
| Average production (million bushels) 2/ | : 4.4  | : 6.2  | : 5.5  | : 3.5  |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

## Peaches - 5.

Since 1930 there has been a considerable contraction in the industry in this group of States, both in number of trees and number of farms growing peaches. The proportion of nonbearing trees has declined only slightly to 25 percent. Average production in 1932-36 of 3,500,000 bushels in the region was well below that of any of the three previous 5-year periods. Growing conditions were below the 10-year average in 1932-36 and it is probable that in the next 5 seasons average production will be maintained near the level of 1932-36. A crop of about 5,000,000 bushels in this region would probably have a greater farm value than a smaller crop.

In the important peach States bordering on the Great Lakes the 8,400,000 trees reported in the 1935 census were somewhat less than the numbers shown in any of the three preceding censuses.

### Number of trees and production in N.Y., Ohio, Mich., Wis., Minn., N.D. and S.D.

| Item                                    | : 1920 | : 1925 | : 1930 | : 1935 |
|---|--------|--------|--------|--------|
| Number of trees (millions)              | 10.4   | 10.2   | 9.5    | 8.4    |
| Proportion not of bearing age (percent) | 23     | 1/     | 36     | 25     |
| Average production (million bushels) 2/ | 4.3    | 4.2    | 3.8    | 2.7    |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

In 1935, one-fourth of the trees were not of bearing age. In 1933-34 there was considerable winter killing of trees in New York. The production trend in Ohio may be slightly downward for several years, whereas in Michigan and probably New York there is likely to be an upward trend. For the region as a whole production may increase moderately. A crop of roughly 4,000,000 bushels in this region would apparently have a higher farm value than a smaller crop. Because of variations from year to year in size of crops, if average production increased to over 4,000,000 bushels, there would probably be burdensome supplies in the years of good growing conditions.

New England is of minor importance in commercial peach production but grows some peaches for local markets. Production will probably be maintained near the level of recent years.

### Number of trees and production in New England States

| Item                                    | : 1920 | : 1925 | : 1930 | : 1935 |
|---|--------|--------|--------|--------|
| Number of trees (millions)              | 1.3    | .8     | .8     | .7     |
| Proportion not of bearing age (percent) | 25     | 1/     | 37     | 27     |
| Average production (million bushels) 2/ | .3     | .4     | .4     | .2     |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

The number of peach trees in western States other than California was approximately the same in 1935 as in 1930 and slightly more than in 1925. The average size of the crop increased slightly from 1930 to 1935.



## Peaches - 6.

Number of trees and production in Mont., Idaho, Wyo., Colo., N. Mex., Ariz., Utah, Nev., Wash., and Oreg.

| Item                                     | : 1920 | : 1925 | : 1930 | : 1935 |
|--|--------|--------|--------|--------|
| Number of trees (millions)               | : 2.7  | : 2.4  | : 2.9  | : 2.8  |
| Proportion not of bearing age (percent): | 9      | : 1/   | : 34   | : 21   |
| Average production (million bushels) 2/: | 3.3    | : 3.2  | : 3.0  | : 3.2  |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

The proportion of trees which had not reached bearing age in 1935 was considerably less than in 1930, but many of the bearing trees were under ten years of age, and since the usual life of peach trees in the West is somewhat longer than in the South and East the production trend is expected to be slightly upward. In some districts injury to trees was reported from the low temperatures in the winter of 1935-36, but this probably will not have much effect on production in the region as a whole. Further material increases in bearing trees in this region may result in burdensome surpluses in years of better-than-average growing conditions.

The number of peach trees in California has declined sharply since 1925. Only 9 percent of the trees had not reached bearing age in 1935, which is a smaller percentage of nonbearing trees than were in

| Number of trees and production in California |        |        |        |        |
|--|--------|--------|--------|--------|
| Item   | : 1920 | : 1925 | : 1930 | : 1935 |
| Number of trees (millions)                   | : 10.4 | : 13.2 | : 11.9 | : 8.9  |
| Proportion not of bearing age (percent):     | 13     | : 1/   | : 14   | : 9    |
| Average production (million bushels) 2/:     | 14.6   | : 17.0 | : 23.3 | : 20.9 |

1/ Not available.

2/ Averages for 1917-21, 1922-26, 1927-31 and 1932-36.

orchards in 1930, and is hardly sufficient to prevent some decline in tree numbers over a period of years. Most of the reduction in California peach trees has been in clingstone varieties. From 1930 to 1936 the clingstone acreage declined about 30 percent to 49,000 acres. California orchards are in generally good condition. There has been some recent planting of both freestone and clingstone varieties. The latter have been principally of newer canning varieties. The acreage of California peaches is about evenly divided between clingstone and freestone varieties, but the production of clingstone is about double that of freestone varieties. At present the average age of freestone peach orchards is greater than that of clingstone orchards. Little change is expected in the trend of production of clingstone varieties in the next 5 years whereas the trend in freestone production will probably be slightly downward. California peach prices have trended upward since the low point in 1932. The price of the 1936 crop which was produced under approximately average growing conditions, was about 43 percent above the average of the previous 5 seasons.

California fresh peaches shipped out of the State in the 5 seasons 1932-36 averaged about 2,000 cars annually, which was equivalent



;

;

;

;

;

;

;



## THE OUTLOOK FOR PEARS IN 1937

### Summary

Production of pears in the United States is on a slightly upward trend, (particularly in the Pacific Coast States). This trend will probably continue for the next 3 or 4 years despite the present small nonbearing acreage. The increasing production will probably go chiefly into fresh consumption rather than to the canneries or to the drying plants. If the rate of new or replacement plantings is not greater than in the last 5 years, it is probable that the number of bearing trees will begin to decline shortly after 1940. Prices paid to growers for pears this season, for the country as a whole, will probably be the highest since 1929. Due to the increasing production in the Pacific Coast States, prices may be expected to be unprofitable whenever yields per acre are much above average, even under improved demand conditions.

There are definite signs of improvement in the foreign situation. This is important since about one-fourth of the pear crop is exported in the form of fresh, canned, and dried pears. The reduction in duties and other concessions that have been secured on pear products in a number of the trade agreements that have been signed to date should stimulate exports. The recent devaluation of currencies by a number of foreign countries, will if it leads to the stabilization of world currencies and the removal of exchange restrictions, further improve the foreign outlook for pear products. More competition may be expected for American pears in world markets because of the increasing production of table pears in many countries.

### Production is Upward

The trend in the production of pears in the United States is upward and despite the present small nonbearing acreage will probably continue upward for several years, since many orchards have not yet reached full-bearing capacity. There was a sharp upward trend in pear production from 1900 to 1930 in the United States but in the last 5 or 6 years the upward trend has been less rapid. The increase in production has been largely due to heavy plantings in the three Pacific Coast States. Production in the rest of the country as a whole has been downward since about 1920. The decline in pear production in the Eastern States has largely been due to the damage to orchards occasioned by pear blight and pear psylla.

Although there are fewer pear trees in the United States at present than at any time in the last 25 years the production is greater than it has ever been. In 1909 the production of pears in the United States was about 8,841,000 bushels compared with 14,891,000 bushels in 1919, 22,354,000 bushels in the 5-year period, 1927-1931, and 22,841,000 bushels in the 5-year period, 1932-36. Increases in pear production in the last 5 years have been chiefly confined to Washington and Oregon in which states the increase largely consists of winter pear varieties.

Pear 2.

PEARS: Total production, production in Middle Atlantic States  
East North Central States, Oregon and Washington,  
California, and other states

| Year       | Total  | Middle Atlantic States | East North Central States | Oregon and Washington | California | Others  |
|------------|--------|------------------------|---------------------------|-----------------------|------------|---------|
|            |        | 1/                     | 2/                        | ton                   |            |         |
|            |        | bushels                | bushels                   | bushels               | bushels    | bushels |
| 1899 3/... | 6,625  | 2,185                  | 782                       | 190                   | 1,913      | 1,555   |
| 1909 3/... | 8,841  | 2,185                  | 1,623                     | 685                   | 1,928      | 2,420   |
| 1919 ....  | 14,991 | 2,653                  | 1,046                     | 2,490                 | 4,625      | 4,077   |
| 1922-26 .. | 20,017 | 2,945                  | 1,664                     | 4,139                 | 6,692      | 4,577   |
| 1927-31 .. | 22,334 | 1,673                  | 1,586                     | 5,983                 | 9,067      | 4,025   |
| 1932-36 .. | 22,541 | 1,464                  | 1,506                     | 7,484                 | 9,090      | 2,997   |

1/ New York, New Jersey, Pennsylvania. 2/ Ohio, Indiana, Illinois, Michigan, and Wisconsin. 3/ Census reports.

The pear crop is utilized in three principal ways: Fresh, canned, and dried. In the 5-year period 1931-35 about 70.5 percent of the average pear crop of 22,400,000 bushels was consumed fresh, 20.1 percent was canned, 4.5 percent was dried, and 4.9 percent was not harvested. Of the three pear products, fresh pears will probably show the greatest increase during the next few years. Practically all the pears that are canned are produced in California, Washington, and Oregon and all of the pears that are dried in California. Since the 1936 pear crop is somewhat larger than average, particularly the crop of the three Pacific Coast States, the canned and dried output will probably be larger than in 1935. Indications are that about 17,336,000 bushels of the total 1936 crop of 23,986,000 bushels will be shipped fresh, 5,600,000 bushels will be canned, and 1,000,000 bushels will be dried.

An increase in canned-pear production in the United States occurred during the period of increasing production of pears in the Pacific Coast States and reached an all-time high in 1934 of around 5,634,000 cases (24 No. 2½ cans). In addition, the equivalent of roughly 600,000 cases of pears were used in canned fruit cocktail and fruit salad. Production in 1935 was around 4,352,000 cases of pears and the equivalent of about 700,000 cases were used in the canned fruit mixture. A heavy pack is reported for 1936. Around 4,800,000 cases of pears will probably be canned, plus the equivalent of around 800,000 cases of pears used in canned salad and canned fruit cocktail. Because of the rapid increase in the pack of canned pears during the last 15 years and competition from other canned fruits, it is not likely that canned-pear production will increase very much in the next 5 years unless prices improve substantially.

Dried-pear production in the United States has fluctuated rather widely from year to year but the trend was upward until 1933, when a peak production of about 6,500 short tons occurred. Practically all the dried-pear production is exported either as dried pears or in blends of mixed dried fruits. Germany was the most important market for dried



Pear 3.

pears until drastic exchange regulations were adopted by that country which greatly reduced the imports of dried pears in the 1934-35 and 1935-36 seasons. Dried-pear production is not likely to increase much unless restrictions on imports into Germany are moderated. Indications are that the production of dried pears in California will be around 5,000 short tons in 1936.

### Pear Prices Improving

The average price of \$0.91 a bushel received by American growers as of September 15 was the highest since 1929 when prices averaged \$1.67 a bushel. The average price for the season has improved steadily since the record low of \$0.39 a bushel in 1932. Present prices for pears indicate that the average price of pears during the 1936-37 season will be considerably higher than last season when it was \$0.63 a bushel. Prices received by growers in the Eastern States have been consistently higher since 1929 than those received by growers on the Pacific Coast. Prices paid to growers in California by canneries this season have been about \$26.50 a short ton, or \$0.66 a bushel, compared with \$28.50 in 1935. During 1932 prices reached an all-time low of \$14 a short ton.

PEARC: Average prices to growers by principal states and year

| Region               | 1925-<br>29 1/ | 1930    | 1931    | 1932    | 1933    | 1934    | 1935    | 1936       |
|----------------------|----------------|---------|---------|---------|---------|---------|---------|------------|
|                      | Dolls.         | Dolls.  | Dolls.  | Dolls.  | Dolls.  | Dolls.  | Dolls.  | Dolls.     |
| ALL USES             | per            | per     | per     | per     | per     | per     | per     | per        |
|                      | bushel         | bushel  | bushel  | bushel  | bushel  | bushel  | bushel  | bushel     |
| United States        |                |         |         |         |         |         |         |            |
| Crop year .....      | 1.21           | 0.75    | 0.60    | 0.39    | 0.55    | 0.70    | 0.63    |            |
| September 15 .....   | 1.43           | 0.86    | 0.78    | 0.55    | 0.60    | 0.78    | 0.74    | 0.91       |
| New York 2/          |                |         |         |         |         |         |         |            |
| Crop year .....      | 1.52           | 0.90    | 0.90    | 0.46    | 0.85    | 0.85    | 0.90    |            |
| September 15 .....   | 1.57           | 0.95    | 1.00    | 0.46    | 0.95    | 1.00    | 1.10    | 1.05       |
| Illinois & Michigan: |                |         |         |         |         |         |         |            |
| Crop year .....      | 1.03           | 1.00    | 0.55    | 0.60    | 0.75    | 0.60    | 0.60    |            |
| September 15 .....   | 1.27           | 1.10    | 0.70    | 0.62    | 1.00    | 0.77    | 0.77    | 0.92       |
| Oregon & Washington: |                |         |         |         |         |         |         |            |
| Crop year .....      | 1.25           | 0.75    | 0.60    | 0.35    | 0.42    | 0.60    | 0.52    |            |
| September 15 .....   | 1.36           | 0.67    | 0.65    | 0.41    | 0.50    | 0.67    | 0.57    | 0.82       |
| California           |                |         |         |         |         |         |         |            |
| Crop year .....      | 1.19           | 0.55    | 0.58    | 0.50    | 0.51    | 0.77    | 0.69    |            |
| September 15 .....   | 1.49           | 0.70    | 0.80    | 0.60    | 0.50    | 0.80    | 0.80    | 0.95       |
|                      | Sh. ton        | Sh. ton | Sh. ton | Sh. ton | Sh. ton | Sh. ton | Sh. ton | Sh. ton    |
| For canning .....    | \$54           | \$30    | \$20    | \$14    | \$17    | \$35    | \$28.50 | \$26.50 4/ |

1/ Prior to 1926 prices as of November 15. 2/ Of the Middle Atlantic States New York, Pennsylvania and New Jersey, prices in New York state were considered the most significant. 3/ Illinois and Michigan are the outstanding producers of the East North Central States which also include Ohio, Indiana and Wisconsin. 4/ Preliminary estimate.

Trees Fewer but More are Bearing

There were fewer pear trees in the United States in 1935 but more bearing trees than in any census year since 1900. This situation probably has not changed greatly in the last 2 years. Out of a total of about 19,400,000 pear trees in 1935, 86 percent were in bearing compared with around 21,300,000 trees in 1930, of which 75 percent were in bearing. The total number of nonbearing trees in all sections of the United States was fewer in 1935 than in any census year since 1910. This reduction in nonbearing trees indicates a sharp reduction in plantings during the depression. In 1910, only about 16 percent of the pear trees in the country were located in California, Washington, and Oregon, but by 1935 one-half of the trees and 69 percent of the domestic production were credited to these States. The only important producing sections of the United States with a larger number of bearing trees in 1935 than in 1930 are the Pacific Coast States, the East North Central States, West North Central States, and the East South Central States. A decline in the number of bearing trees was general in the South Atlantic States, and in the Mountain States. There was a heavy reduction in the number of trees in California, although the number of bearing trees was only slightly less than in 1930.

PEAR TREES: Total, bearing and nonbearing trees by census years, and the percentage of trees of bearing and nonbearing age

| Year       | All<br>ages    | Bearing<br>age | Not of<br>bearing<br>age | Percentage<br>of<br>bearing age | Percentage<br>not of<br>bearing age |
|------------|----------------|----------------|--------------------------|---------------------------------|-------------------------------------|
|            | 1,000<br>trees | 1,000<br>trees | 1,000<br>trees           | 1,000<br>trees                  | 1,000<br>trees                      |
| 1900 ..... | 1/             | 17,716         | ---                      | ---                             | ---                                 |
| 1910 ..... | 23,975         | 15,171         | 8,804                    | 63.3                            | 36.7                                |
| 1920 ..... | 20,700         | 14,648         | 6,052                    | 70.8                            | 29.2                                |
| 1925 ..... | 23,198         | 2/             | ---                      | ---                             | ---                                 |
| 1930 ..... | 21,271         | 16,043         | 5,228                    | 75.4                            | 24.6                                |
| 1935 ..... | 19,436         | 16,695         | 2,741                    | 85.9                            | 14.1                                |

Compiled from Census Reports rounded to thousands.

1/ Only trees of bearing age were tabulated but it is believed that some nonbearing trees were included. 2/ Only the total number of trees was reported.

The pear industry of the United States is probably on a more efficient basis at present than ever before. The low prices prevailing during the depression have resulted in the removal of unsatisfactory trees, the abandonment of unprofitable orchards, and the reduction of production costs. The yield per bearing tree in 1935 amounted to over one and one-half bushels compared with a little over one-half bushel in 1910. Yields have increased for the country as a whole but the high average at the present time is largely due to the heavy pear yields in the three Pacific Coast States.

### Export Situation

The export outlet for pears is of great importance to the industry. In some years as much as one-fourth of the American pear crop is exported in the fresh, canned, or dried states. The proportion of the total pear crop of 22,000,000 bushels exported in the 1935-36 season was 24.1 percent compared with 19.0 percent in 1934-35 and 25.6 percent in 1933-34. Exports of fresh pears in the 1935-36 season totaled about 2,500,000 bushels, exports of canned pears were equal to 1,800,000 bushels of fresh fruit, and exports of dried pears amounted to about 1,000,000 bushels of fresh fruit, making a total of 5,300,000 bushels of fresh fruit.

World pear production probably varies between 140,000,000 and 150,000,000 bushels a year. However, strictly table fruit probably constitutes less than one-third of the total. The production of dessert pears is on an upward trend because of the increasing production in the United States, Argentina, Australia, New Zealand, Canada and South Africa. Cultural and marketing improvements in some European countries such as the Netherlands, Belgium, Switzerland, and England are also causing an increase in the production of dessert pears.

Exports of fresh pears from the United States during the first few months of the 1936-37 season have proven profitable. The outcome for the remainder of the season will depend largely upon the quantities exported, the condition of the fruit on arrival, and the extent of competition from pears from other countries. Considerable competition has developed in recent years with South African and more recently with Argentine pears. Pears from both countries begin to arrive in Europe shortly after the first of the year. Australian and New Zealand pears reach Europe early in March. Exports of fresh pears from the United States in the last 4 seasons have averaged 15 percent of the pear crop used for consumption as fresh fruit, or an average of 2,300,000 bushels a year. The chief markets for fresh pears are the United Kingdom, France, Canada, Sweden, and the Netherlands.

Exports of canned pears are more important from the standpoint of value than the exports of either fresh or dried pears. Exports in the 1935-36 season, July to June, amounted to 1,646,000 cases (50 lbs.) compared with 1,428,000 cases in 1934-35. In addition to the canned pears the equivalent of about 210,000 cases of canned pears were exported in the form of canned salad or fruit cocktail in 1935-36, compared to 162,000 cases in 1934-35. The United Kingdom is the outstanding market for both canned pears and canned salad fruit. Almost one-third of the canned-pear pack is exported and probably as much as half of the canned-salad fruit pack is exported in some seasons.

Dried pears produced in the United States are largely exported. Exports of pears in the dried form from the United States in the 1935-36 season, July to June, totaled 3,780 short tons compared with 2,843 short tons in 1934-35. Adding to these figures the dried pears exported in dried fruit compute the exports for 1935-36 become 5,227 short tons compared with 3,983 short tons in 1934-35. The average production



Pear 6.

of dried pears in California in the 5-year period, 1931-35, was 5,200 short tons. The most important markets for dried pears are France, the United Kingdom, the Netherlands, Sweden, and Germany. With the exception of a small production of dried pears in South Africa, the United States is practically the only source of this product. An increase in the exports of dried pears depends largely upon the modification of the strict exchange regulations in Germany and the opening of new markets for this product.

A new element has been injected into the outlook for exports of pear products this year by the recent devaluation and realignment of currencies in a number of European countries. While this move is expected to eventually result in the stabilization of currencies and therefore benefit foreign trade, the immediate effect may be to cause some increase in the prices of imported fruits in the countries that devalued their currencies. In most of these countries devaluation was accompanied by a reduction in duties and other import restrictions. If these countries are successful in preventing an undue rise in the cost of imported articles the export outlook for American pear products should be well maintained.

Fresh, dried, and canned pears have benefited substantially under the Trade Agreements Act of June 12, 1934 but most agreements have been in effect too short a time to allow the benefits to be measured quantitatively. During the 1934-35 season about 40 percent of the fresh-pear exports, 52 percent of the dried-pear exports, and 2 percent of the canned-pear exports went to the 14 countries with which trade agreements have been signed to date. Only a small proportion of the canned-pear trade was affected since over 90 percent goes to the United Kingdom. Fresh pears were given consideration in 13 of the 14 agreements. Reductions in duties on fresh pears were secured in 6 agreements and the existing duties were guaranteed against increase in 7 other agreements. In addition, larger quotas on fresh apples and pears were secured from France and Switzerland. The duties on dried pears were reduced in 7 of the agreements and were held at existing rates in 3 others. Some concession on canned pears was received in all 14 agreements. Reductions in duties were secured in 9 and the existing duties were guaranteed against increase in the other 5 agreements.



## THE CHERRY OUTLOOK FOR 1937

### Summary

Considering the total number of trees and the percentage not yet of bearing age it appears that cherry production in the United States for the next 5 years, under average growing conditions, will be as high if not higher than the average of the last 5 years. Although plantings during the last few years in most of the important producing States have been little more than sufficient to take care of replacements, it is believed that enough trees will come into bearing to more than offset any normal losses and removals for 2 or 3 more years.

Farm prices of cherries, which dipped sharply after 1929 to a low point in 1932, have been rising slowly in recent years largely because of increased demand and a higher general price level. But in view of the present productive capacity it is expected that prices to growers will continue to show less improvement than prices for other farm commodities.

The number of trees of bearing age in the United States increased 35 percent from 1930 to 1935. About 25 percent of the total number of trees in the entire country were of nonbearing age in 1935. In 1930, 36 percent were of nonbearing age. It is indicated that heavy plantings were made during the period 1925-30, when prices to growers were at high levels. It is also evident that large numbers of trees planted before 1930 have now come into bearing.

The increase in bearing acreage and an upward trend in production during recent years have been greater in the eastern group of States (New York, Pennsylvania, Ohio, Michigan, and Wisconsin) than in the western group (Montana, Idaho, Colorado, Utah, Washington, Oregon, and California). From 1930 to 1935 the number of bearing trees in the former group increased 55 percent, compared with increase of 26 percent in the western States and 43 percent in the 12 States.

### 12 Important States

There were slightly more than 15,000,000 cherry trees in the United States in 1935, or the largest number since 1910. About 11,000,000 of these were in the 12 important commercial States.

The number of trees in the 12 important producing States (New York, Pennsylvania, Ohio, Michigan, Wisconsin, Montana, Idaho, Colorado, Utah, Washington, Oregon, and California), as reported in the census, showed little change from 1910 to 1920. From 1920 to 1930 there was an increase of 16 percent, and during the period 1930-35 there was an additional increase of 16 percent in the number of trees.

The ratio of nonbearing to total number of trees in these 12 States is now about the same as it was 15 years ago or 22 percent. In 1930, however, 37 percent of trees had not yet reached bearing age.

Unless there is a considerable abandonment of orchards or injury from freezing and disease, production in the 12 States during the next few years may reasonably be expected to be well above the 5-year (1928-32) average, and equal to or even slightly above the more recent and higher yearly production figures.

Cherry production in the 12 important producing States has fluctuated widely from year to year but the general trend has been upward during the last 10 or more years, reaching a peak in 1932, when the total production was estimated at 127,108 tons. Production was down slightly in 1933 and 1934, because of unfavorable weather conditions. In 1935 it was above 120,000 tons. Production in 1936 (preliminary report) was 103,650 tons; this was 14 percent less than the 1935 production and 4 percent less than the 5-year average. Above-average yields were harvested in Michigan and the Pacific coast States, but yields elsewhere were reduced drastically by late spring freezes.

Because of a short crop the 1936 pack of canned sour cherries was much below normal. This situation enabled canners to clean up stock remaining from the heavy 1935 pack. Trade reports indicated that the industry is in a much improved position, with the reduced supplies in 1936 selling readily and at advancing prices.

Preliminary trade estimates indicated that about the same quantity of Royal Ann cherries, in the Pacific coast States, was utilized for canning and barreling in brine, in 1936 as in 1935.

#### Eastern States

Since the production of sour cherries is confined largely to States east of the Rocky Mountains, trends of the industry in the Eastern group of States may be taken as indicative of trends in the sour-cherry industry. In this group of States, expansion of acreage and the resulting upward trend in production have been greater than for the country as a whole or for the Western States. The proportion of trees reaching bearing age in these States has also been greater in the last few years than has been true of the Pacific Coast States. In 1935, 20 percent of the cherry trees in the Eastern States were of nonbearing age and in the Western States 26 percent of trees were nonbearing. In the entire country, 25 percent of trees had not yet reached bearing age.

Michigan is now the largest cherry-producing State. According to the 1935 Census there were about 2,250,000 bearing trees in the State compared with 1,187,000 bearing trees in 1930. The 1935 Census shows 19 percent of the trees as nonbearing; 5 years earlier 46 percent of the trees were nonbearing. This State produced 27,450 tons in 1936 or 59 percent of the entire quantity produced in the five important Eastern States.

Western States

About 90 percent of the commercial output of sweet cherries is produced in the five far Western States. According to the 1935 Census, in the entire group of Western States (7 States) 26 percent of the total number of trees were of nonbearing age. The percentage is less for the largest producing States, California and Washington, where it is estimated that the bearing acreage of sweet cherries has about reached its peak.

Considering the fact that there are large numbers of trees in the remainder of the Western States yet to come into bearing it is quite probable that production in the Western group of States, where sweet cherries are of most importance, will continue to be heavy for some years to come.

Production in the Western States has varied widely from year to year, reaching a recent peak in 1933, when total production was placed at 65,179 tons. With the exception of a short crop year in 1931, there was a distinct upward trend from 1927 to 1933.

In 1934 and 1935, sweet-cherry crops were abnormally low. More favorable growing conditions resulted in a 1936 production above the 1928-32 average, but still below quantities produced in 1932 and 1933.

Cherries: Production in 12 states, all varieties, average  
1928-32, and years 1932-36

| State              | :Average :<br>: 1928- :<br>: 1932 : | : 1932 :<br>: | : 1933 :<br>: | : 1934 :<br>: | : 1935 :<br>: | : 1936 :<br>: |
|--------------------|-------------------------------------|---------------|---------------|---------------|---------------|---------------|
|                    | : Tons                              | Tons          | Tons          | Tons          | Tons          | Tons          |
| <u>Western</u>     |                                     |               |               |               |               |               |
| Mont. ....         | 556                                 | 780           | 735           | 750           | 524           | 130           |
| Idaho ....         | 3,160                               | 3,400         | 3,160         | 2,982         | 3,024         | 1,890         |
| Colo. ....         | 3,315                               | 3,825         | 1,976         | 5,920         | 4,662         | 810           |
| Utah ....          | 3,580                               | 4,200         | 3,078         | 3,850         | 3,540         | 5,330         |
| Wash. ....         | 13,575                              | 16,100        | 16,330        | 12,500        | 12,600        | 15,900        |
| Oreg. ....         | 10,513                              | 12,000        | 15,000        | 11,000        | 13,900        | 13,000        |
| Calif. ....        | 18,760                              | 18,500        | 24,900        | 16,700        | 15,000        | 20,200        |
| Total              | :                                   |               |               |               |               |               |
| Western .....      | 53,459                              | 58,805        | 65,179        | 53,702        | 53,250        | 57,260        |
| <u>Eastern</u>     |                                     |               |               |               |               |               |
| N. Y. ....         | 18,379                              | 25,627        | 10,754        | 19,220        | 22,550        | 12,840        |
| Sweet .....        |                                     | 3,332         | 1,398         | 1,160         | 1,950         | 1,400         |
| Sour .....         |                                     | 22,295        | 9,356         | 18,060        | 20,600        | 11,440        |
| Pa. ....           | 7,228                               | 9,150         | 4,375         | 6,344         | 7,360         | 3,630         |
| Ohio ....          | 3,115                               | 3,240         | 2,806         | 3,660         | 4,260         | 770           |
| Mich. ....         | 21,200                              | 23,380        | 27,300        | 26,560        | 26,660        | 27,450        |
| Sweet .....        | ---                                 | ---           | ---           | 1,570         | 2,220         | ---           |
| Sour .....         | ---                                 | ---           | ---           | 24,990        | 24,440        | ---           |
| Wis. ....          | 6,583                               | 6,864         | 7,040         | 4,400         | 6,050         | 1,700         |
| Total              | :                                   |               |               |               |               |               |
| Eastern .....      | 56,505                              | 68,303        | 52,275        | 60,184        | 66,880        | 46,390        |
| Total 12 States... | 107,896                             | 127,108       | 117,454       | 113,886       | 120,130       | 103,650       |
|                    | :                                   |               |               |               |               |               |
|                    | :                                   |               |               |               |               |               |
|                    | :                                   |               |               |               |               |               |



The Cherry Outlook for 1937 - 5.

Cherry trees: Number and percentage not of bearing age in the  
Eastern States, Western States, 12 States, and the  
United States, 1910, 1920, 1930, and 1935

| Item                      | 1910           | 1920           | 1930           | 1935           |
|---------------------------|----------------|----------------|----------------|----------------|
|                           | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  |
| <u>Eastern States</u>     |                |                |                |                |
| Not of bearing age .....  | 1,102,106      | 1,128,204      | 1,940,939      | 1,365,543      |
| Of bearing age .....      | 3,943,969      | 4,299,193      | 3,517,828      | 5,443,881      |
| Total trees .....         | 5,046,075      | 5,427,397      | 5,458,767      | 6,809,424      |
|                           | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> |
| Percentage not bearing .. | 22             | 21             | 36             | 20             |
| <u>Western States</u>     | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  |
| Not of bearing age .....  | 1,391,303      | 622,339        | 1,532,127      | 1,091,896      |
| Of bearing age .....      | 1,452,138      | 2,026,562      | 2,411,081      | 3,028,835      |
| Total trees .....         | 2,843,501      | 2,648,901      | 3,943,208      | 4,120,731      |
|                           | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> |
| Percentage not bearing .. | 49             | 23             | 39             | 26             |
| <u>12 States</u>          | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  |
| Not of bearing age .....  | 2,493,409      | 1,750,543      | 3,473,067      | 2,457,439      |
| Of bearing age .....      | 5,396,167      | 6,325,755      | 5,928,909      | 8,472,716      |
| Total trees .....         | 7,889,576      | 8,076,298      | 9,401,976      | 10,930,155     |
|                           | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> |
| Percentage not bearing .. | 32             | 22             | 37             | 22             |
| <u>United States</u>      | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  | <u>Number</u>  |
| Not of bearing age .....  | 5,621,680      | 3,694,531      | 4,615,386      | 3,746,569      |
| Of bearing age .....      | 11,822,044     | 10,787,751     | 8,381,472      | 11,327,435     |
| Total trees .....         | 17,443,704     | 14,482,282     | 12,996,758     | 15,074,004     |
|                           | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> |
| Percentage not bearing .. | 32             | 26             | 36             | 25             |



## THE GRAPE OUTLOOK FOR 1937

### Summary

Improvement in general economic conditions in the next few years may be expected to bring about increased demand for and consumption of grape products and all varieties of grapes. The present bearing acreage of all varieties appears to be hardly sufficient, with average yields, to take care of the expected increase in consumption during the next 2 or 3 years. Furthermore, a recent survey indicates that nonbearing acreage and present plantings in California are insufficient to maintain the present bearing acreage. Foreign supplies of grapes and grape products are likely to be plentiful and with the existing high foreign import duties and trade restrictions it seems probable that the quantities of our raisin grapes and wine going to export markets will continue to be relatively small.

United States production of all grapes for 1936 was estimated on October 1 at 1,370,000 tons. This indicated production is about 5 percent less than the 1931-35 average but considerably smaller than the rather large crop of last year. With average growing conditions and reasonable control of insect pests and diseases the present bearing acreage may be expected to produce at least 2,000,000 tons per year.

The present bearing acreage of raisin grapes appears hardly sufficient, with average yields, to produce supplies of grapes large enough to take care of the demand for raisin varieties for use as juice and table stock in addition to satisfying the demand for raisins. Consequently, some increase in the bearing acreage of certain raisin varieties, Thompson Seedless and Muscat, appears desirable during the next few years. The estimated crop of raisin grapes for 1936, as of October 1, was 924,000 tons. This is equal to the average for 1933 and 1934, but about 8 percent less than the 1931-35 average. The carry-over of raisins from last season is relatively small and the total supply of raisins for the 1936-37 season will not be excessive. Prices offered by commercial packers at the beginning of this season indicate substantial increases over last year's prices.

The demand for table grapes will undoubtedly increase with improvement in business conditions and in purchasing power of consumers, and average production from present bearing acreage will probably be no more than sufficient to take care of the increase that may occur during the next 2 or 3 years. Plantings at least sufficient to maintain present bearing acreage appear desirable. The indicated United States production of all table varieties, October 1 estimate, is 493,000 tons. This is about 13 percent below the 1931-35 average. California production is slightly above average, but production in other States is about one-third less than average. Prices of California table grapes in the eastern markets this season are about 12 percent higher than those of last year. Prices of eastern grapes in the terminal markets have made very large gains over those of last year.

Wine consumption has increased at an unexpectedly high rate since repeal of the Eighteenth Amendment, and is an encouraging factor in the outlook for all grapes, especially wine grapes. However, if the bearing acreage of raisin and table varieties is maintained, or increased slightly, the total quantity of grapes available for juice stock will probably be sufficient for the next few years without any increase in the bearing acreage of wine grapes. The October 1 estimate of the 1936 California wine grape production was 462,000 tons. This is smaller than the exceptionally large crop of last year, but 8.5 percent above the 1931-35 average. Indicated prices to growers of wine grapes in California are substantially higher than those of last year.

### Raisin Grapes

Demand for raisins will probably show some improvement with improved economic conditions in both domestic and foreign markets, but large normal crops of raisins in foreign countries are in prospect, and exports are still restricted by high tariff duties and restrictions on imports of raisins into <sup>important</sup> foreign markets. Since the repeal of prohibition, rather large quantities of raisin grapes have been used for the production of wine and brandy, and in recent years there has been an increasing demand for certain raisin varieties for use as table grapes. The present bearing acreage of raisin grapes appears to be hardly sufficient to produce, with average yields, large enough supplies to take care of these requirements in addition to satisfying the demand for raisins, and some increase in the bearing acreage of certain raisin varieties, Thompson Seedless and Muscat, appears desirable during the next few years.

The indicated 1936 crop of California raisin grape varieties on October 1 was 924,000 tons, exactly equal to the average production of the 2 years 1933 and 1934, but about 8 percent less than the 1931-35 average. The crop this year was curtailed by early spring freezes, but growing conditions during the summer were generally good. The raisin grape crop of last year was extremely large in comparison with the relatively small crops of the previous 4 years. The small crops in these years were due largely to low yields per acre resulting from scarcity of water, excessive summer heat, and damage from leaf hoppers. With normal weather conditions and reasonable control of insect pests and diseases, the present bearing acreage of raisin grapes is capable of producing about 1,000,000 tons per year. Of this total tonnage, Sultaninas (Thompson seedless) may be expected to constitute an average of about 70 percent, muscats about 25 percent, and other varieties somewhat less than 5 percent.

In the 2 years 1933 and 1934, when production of raisin grapes was about the same as the indicated 1936 crop, an average of about 14 percent of the total raisin grape crop was used for juice stock (commercial and home use), about 6 percent was consumed as fresh table grapes, and about 30 percent was dried. It seems probable that the disposition of the 1936 raisin grape crop may follow these proportions rather closely, although changes in demand conditions may result in some modification.



The total pack of dried raisins last year amounted to about 206,000 tons, and a carry-over of 80,000 made the total supply for the 1935-36 season approximately 286,000 tons. The apparent movement of raisins into consuming channels during the 1935-36 season was about 226,000 tons, leaving a carry-over at the beginning of the present season of about 60,000 tons. It seems probable that the pack this season will be about 190,000 tons, making the total supply of raisins for the 1936-37 season approximately 250,000 tons.

The Summaid Raisin Growers Association announced on September 3 an advance payment schedule on 1936 crop raisins of \$55 a ton average for Thompson seedless and Muscats and \$50 for Sultanas. This represents a \$5 increase per ton over the 1935 schedule for Thompsons and Sultanas, and a \$15 increase for Muscats. Other packers have been offering \$65 and \$70 a ton for Thompson seedless raisins since the first of August.

### Table Grapes

The demand for and consumption of table grapes may be expected to increase with improvement in business conditions and in purchasing power of consumers. With average yields, the present bearing acreage probably will produce supplies of table grapes no more than sufficient to take care of the increase in consumption that may occur within the next few years. Sufficient plantings should be made to at least maintain the present bearing acreage.

Estimated California production of table varieties as of October 1, 1936 is 315,000 tons. This is slightly above the 1931-35 average but about 16 percent less than the very large production of 1935. During the last 3 years an average of 44 percent of the California crop of table varieties has been crushed by commercial wineries for wine and brandy, and it appears likely that considerable quantities of table grapes will continue to be used for this purpose during the next few years. The extent of the utilization of table varieties in this manner will depend, of course, on the quantity demanded by consumers and the price of fresh table grapes in relation to the supply and price of wine grapes. Prices of California table grapes in the eastern markets during the first 4 months of the 1936 season were about 12 percent higher than the relatively low prices of last season, but about the same as the prices of the 1934-35 season.

Total production of grapes in all States, excluding California, was estimated on October 1, 1936 at 172,000 tons. This very small crop is about one-third less than the 1931-35 average production for these States, and is due to extremely unfavorable growing conditions. Very low temperatures last winter were followed by severe frosts in the late spring in New York, Pennsylvania, Ohio and Michigan, and the drought during the summer did further damage in many of these producing regions. There appears to be no pronounced trend in eastern grape production, although the census figures on number of wines indicate a reduction of a little less than 5 percent from 1930 to 1935. About 12 or 13 percent of the eastern grape crop is ordinarily used by commercial concerns for making wine and 8 or 9 percent for unfermented grape juice. This makes a total of from 20 to 22 percent used for juice purposes. It is possible, however, that a slightly

larger proportion of the very small 1936 crop will be utilized for this purpose. Eastern grape prices for the 1936 season are much higher than those of the previous year. The price of New York Concords at New York City at the beginning of the marketing season was about 45 percent higher than that of the corresponding period last year, and the price of Michigan Concords at Chicago was about 85 percent higher than a year ago. The extremely high prices of eastern grapes, of course, are largely a result of the small supply of these varieties.

#### Wine Grapes

There has been an unexpectedly great increase in wine consumption since repeal of the Eighteenth Amendment. According to preliminary data recently made available, it appears that consumption of all wine, including home-made and commercial, for 1935-36, was approximately 0.68 gallons per capita. This is slightly greater than the largest per capita consumption during the pre-prohibition era. This increased demand for wine, of course, is an encouraging factor in the outlook for all grapes, especially for wine varieties. However, if the bearing acreage of raisin and table varieties is maintained, or increased slightly, the total quantity of grapes available for juice stock will probably be sufficient for the next few years without any increase in the bearing acreage of wine grapes. In the interest of improvement in quality of wine and brandy, some shifting of acreage to better wine grape varieties might be desirable. The profitability of such shifting in acreage is largely dependent upon the premium that the consuming public is willing to pay for high quality wines. This premium is likely to increase with increases in purchasing power and with the cultivation of quality appreciation on the part of consumers.

The production of California wine grape varieties for 1936 was estimated on October 1 at 462,000 tons. This is smaller than the exceptionally large crop of last year, but is about 8.5 percent greater than the 1931-35 average production. During the last 3 years about 30 percent of the California wine grapes has been shipped to Eastern States for use in home wine making. It is expected that about an equal percentage of the 1936 crop will be shipped for this purpose and the remainder of the wine varieties, approximately 320,000 tons, will be available for wine and brandy production in California. Since the repeal of the Eighteenth Amendment, increasing quantities of table and raisin varieties have been crushed in California wineries, and apparently there will be available for this purpose at least 250,000 tons of these varieties from the 1936 crop.

The grape outlook - 5.

In addition to the wine grapes shipped east for home wine making during the last 3 years, an average of about 50,000 tons of raisin and table grapes, largely Muscat varieties, has been shipped east for this purpose. These eastern shipments, plus the average quantity of grapes used for home wine making in California, make an annual average of more than 500,000 tons of grapes used during the last 3 years to make home made wine.

The prices of wine grapes on the New York auction market through October of the 1936 season averaged slightly higher than the average for the corresponding period in 1935. Indicated prices to growers of wine grapes in California, however, are substantially higher than in the previous year.

Grapes: Production by years, 1931-36, 1926-30 average, and 1931-35 average

|                           |                    |                    |            |            |            |            |            | 1936         | 1/                              |
|---------------------------|--------------------|--------------------|------------|------------|------------|------------|------------|--------------|---------------------------------|
| Region and variety        | Average: 1926-1930 | Average: 1931-1935 | 1931       | 1932       | 1933       | 1934       | 1935       | Actual: 1936 | Percent- age of 1931-35 average |
|                           | 1,000 tons         | 1,000 tons         | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons   | Per- cent                       |
| Calif. ....               | 2,181              | 1,734              | 1,320      | 1,926      | 1,660      | 1,700      | 2,194      | 1,701        | 98.1                            |
| Table .....               | 413                | 306                | 229        | 317        | 270        | 346        | 375        | 315          | 102.9                           |
| Wine .....                | 454                | 426                | 316        | 388        | 420        | 476        | 571        | 462          | 103.5                           |
| Raisin .....              | 1,314              | 1,002              | 775        | 1,221      | 970        | 878        | 1,248      | 924          | 92.4                            |
| Other States :            | 259                | 264                | 301        | 278        | 250        | 231        | 262        | 178          | 67.4                            |
| Total United States ..... | 2,440              | 1,998              | 1,621      | 2,204      | 1,910      | 1,931      | 2,456      | 1,879        | 95.0                            |

1/ October 1 estimate.

The grape outlook - 6.

California grapes, all varieties, classified according to disposition, 1931 - 1935 1/

| Disposition                       | 1931      | 1932      | 1933      | 1934      | 1935      |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                   | Tons      | Tons      | Tons      | Tons      | Tons      |
| Juice stock, total .....          | 374,800   | 488,700   | 665,100   | 748,100   | 1,130,400 |
| Crushed in state .....            | 34,600    | 99,000    | 444,000   | 530,000   | 887,000   |
| Interstate shipments, fresh       | 269,100   | 321,000   | 180,200   | 184,600   | 218,900   |
| Otherwise used in state <u>2/</u> | 71,100    | 68,700    | 40,900    | 33,500    | 24,500    |
| Table stock, total .....          | 232,500   | 220,800   | 197,930   | 254,500   | 245,200   |
| Interstate shipments .....        | 204,400   | 185,000   | 167,900   | 218,500   | 208,600   |
| Used in state <u>2/</u> .....     | 28,100    | 35,800    | 30,030    | 36,000    | 36,600    |
| Dried .....                       | 702,400   | 1,062,000 | 793,000   | 695,200   | 816,000   |
| Canned .....                      | 300       | 500       | 970       | 2,200     | 2,400     |
| Total utilized .....              | 1,310,000 | 1,772,000 | 1,657,000 | 1,700,000 | 2,194,000 |
| Unharvested .....                 | 10,000    | 154,000   | 3,000     | ---       | ---       |
| Total crop .....                  | 1,320,000 | 1,926,000 | 1,660,000 | 1,700,000 | 2,194,000 |

1/ These data based on reports of the California Cooperative Crop Reporting Service and the Federal State Market News Service.

2/ Estimated; the California Cooperative Crop Reporting Service classification of "Otherwise used fresh within State" was divided in the ratio of interstate shipments of juice stock and table stock.



## THE OUTLOOK FOR STRAWBERRIES FOR 1937.

Conditions appear to be favorable for strawberry production and prices in 1937. Prices paid to growers dropped to a low point in 1933, but since that year the trend has been upward. If the quality of the 1937 crop is average, or above average, it is probable that prices received by growers will be equal to or slightly higher than were received in 1936. Based on reports from commercial growers October 1, 1936, the United States strawberry acreage for picking in 1937 will be increased 3 percent over the total acreage harvested in 1936 but will still be 5 percent under the 5-year (1928-32) average.

Substantial increases in acreage are forecast for the early States. In the second-early and intermediate States, strawberry beds were damaged by lack of rain and excessive heat. For these two groups of States a decrease is in prospect for 1937. A new high strawberry acreage is promised in the late States, most of which had favorable growing conditions in 1936.

A great many strawberry beds in the drought States came through the summer in poor condition. For the country as a whole, the condition of all beds on October 1, 1936, was 58 percent compared with 74 percent a year earlier. Condition of first-year, second-year, and older beds was reported to be 59, 60, and 55 percent, respectively, compared with 79, 70, and 59 percent reported in 1935. Past experience has proved, however, that strawberry plants have strong recuperative powers, and the low condition reported October 1, 1936, largely due to unusual summer conditions, may not influence 1937 production to the extent that these low condition figures indicate.

While accurate forecasts of strawberry production several months in advance are not possible because of unknown weather factors, such as drought, frosts, and excessive rain, it is probable that production in 1937 will be somewhat larger than the crop harvested in 1936. If yield per acre were to approximate the 10-year average, the crop next year, due to the expected increase in acreage, would reach 287,000,000 quarts, or about 16 percent larger than in 1936. Most of this increase is expected to take place in the early and late States.

With respect to the setting of new beds in 1937 for picking in 1938, growers' intentions reports, on October 1, 1936, showed the possibility of a 50 percent increase in new beds over the present 1937 new-bed acreage, compared with a 20 percent increase the previous year. Large increases are expected in Arkansas, Tennessee, and Missouri, where much of this acreage will replace beds damaged by the drought in 1936. Growers' plans may be altered somewhat prior to planting time, depending upon the factors of weather, local credit, and the supply of plants.

### Regional Prospects

In the early shipping States (Alabama, Florida, Louisiana, Mississippi, and Texas) a sharp increase in acreage for 1937 is indicated by growers' reports on October 1, 1936. In Louisiana, where favorable prices prevailed in 1936, the increase is expected to be 15 percent. Production in this group of States in 1936 was higher than in 1935, but below the 5-year (1928-32) av-

# Strawberries, #2

erage. Due to a favorable growing season in 1936, yield per acre was higher than in 1935 and about equal to the 10-year (1923-32) average. Growers in 1935 experienced difficulty in securing plants and the acreage harvested in 1936 was smaller than the acreage picked in 1935.

A small decrease in acreage is in prospect for the second-early group of States (Arkansas, California (Southern district), Georgia, North Carolina, South Carolina, Tennessee, and Virginia). The largest decrease is expected in Arkansas, where hot weather and lack of rain completely destroyed a great many beds. An increase is forecast for Virginia, with only minor changes in the other States of this group. Lack of rainfall preceding and during picking time accounted for the low production in 1936. For this group of States, yield per acre was the lowest since 1930.

A smaller acreage is expected in the intermediate States (California (other), Delaware, Illinois, Kansas, Kentucky, Maryland, Missouri, New Jersey, and Oklahoma). Most of the decrease is due to the acreage killed by the severe drought in 1936. Production of strawberries in this group of States in 1935 was the lowest since 1931 despite a large increase in acreage. Yield per acre, due to the drought, was very disappointing and the quality of the fruit was below average.

Strawberry acreage in 1937 is expected to reach a new high in the late States (Indiana, Iowa, Michigan, New York, Ohio, Oregon, Pennsylvania, Utah, Washington, and Wisconsin). In most of the States in this group, the 1936 growing season was moderately favorable and production was slightly above the large crop harvested in 1935.

| Strawberries: Acreage, production, and farm value |           |         |            |                           |           |        |                   |        |        |
|---|-----------|---------|------------|---------------------------|-----------|--------|-------------------|--------|--------|
| Group   | Acreage   |         |            | Production                |           |        | Farm value        |        |        |
|   | 5-year    | 1935    | 1936       | 5-year                    | 1935      | 1936   | 5-year            | 1935   | 1936   |
|   | average   |         |            | average                   |           |        | average           |        |        |
|   | 1928-32   |         |            | 1928-32                   |           |        | 1928-32           |        |        |
|   | - Acres - |         |            | - 1,000 24-quart crates - |           |        | - 1,000 dollars - |        |        |
| Early .....                                       | 41,470    | 40,500  | 35,050:1/  | 2,527:1/                  | 1,664:1/  | 1,955  | 11,001            | 6,026  | 7,539  |
| Second-early                                      | 47,710    | 39,850  | 41,000     | 3,193                     | 3,045     | 2,251  | 8,215             | 6,612  | 5,847  |
| Intermediate                                      | 50,040    | 39,560  | 44,360:1/  | 3,327                     | 3,468     | 2,436  | 8,634             | 7,798  | 6,701  |
| Late .....  | 42,370    | 43,400  | 47,350     | 3,080                     | 3,504     | 3,642  | 9,085             | 6,872  | 9,250  |
| Total United States ...                           | 181,590   | 163,310 | 167,760:1/ | 12,127:1/                 | 11,681:1/ | 10,284 | 36,935            | 27,308 | 29,337 |

1/ Includes quantities not harvested on account of market conditions and which are not included in farm value.

| Acreage harvested in 1936 and acreage for picking in 1937 |               |         |                 |         |                  |        |            |        |                |
|---|---------------|---------|-----------------|---------|------------------|--------|------------|--------|----------------|
| Group   | Total acreage |         | First-year beds |         | Second-year beds |        | Older beds |        | Condition      |
|   | 1936          | 1937    | 1936            | 1937    | 1936             | 1937   | 1936       | 1937   | October 1      |
|   |               |         |                 |         |                  |        |            |        | All beds       |
|   |               |         |                 |         |                  |        |            |        | 1935 : 1936    |
|   |               |         |                 |         |                  |        |            |        | Pct. of normal |
| Early .....   | 35,050        | 38,400  | 33,570          | 36,750  | 870              | 1,240  | 610        | 410    | 86.9 : 54.4    |
| Second-early  | 41,000        | 39,150  | 19,040          | 22,280  | 14,550           | 12,630 | 7,410      | 4,240  | 63.2 : 51.2    |
| Intermediate  | 44,360        | 41,650  | 22,950          | 20,390  | 15,870           | 16,320 | 5,540      | 4,940  | 71.6 : 54.8    |
| Late .....  | 47,350        | 53,600  | 23,000          | 25,340  | 16,980           | 17,320 | 7,370      | 10,940 | 76.2 : 69.1    |
| Total United States                                       | 167,760       | 172,800 | 98,560          | 104,760 | 48,270           | 47,510 | 20,930     | 20,530 | 74.0 : 58.5    |

## THE OUTLOOK FOR TREE NUTS FOR 1937.

Summary

The outstanding features of the long-range outlook for tree nuts (nuts other than peanuts) appear to be (1) continuation of the upward trend in production, (2) further increases in consumption of cashews, (3) reduced importance of almonds in the total consumption of all tree nuts, and (4) keener competition of pecans with other nuts, probably walnuts in particular. The outstanding feature of the estimated consumption figures for last year (October 1935 to September 1936) is a sharp increase, for the second successive year, in the total consumption of tree nuts. It is probable that much of this increase is attributable to the rise in consumers' income, and that further increases may be expected with further advances in consumers' income. With reference to the current crop year, the outlook is for higher prices for tree nuts, since the pecan, almond, and Persian (English) walnut crop are all substantially smaller than last year.

The 1936 almond crop is expected to be smaller than the 1935 crop--7,500 tons as compared with 9,300 tons. Almond production in the United States has declined each year since 1931. The crop of 1936 is 40 percent below the 1926-31 average. It is not probable that almond production over the next few years will rise much if any above the level of the last 1 or 2 years. Almond consumption rose sharply in 1935-36, after a long decline from the early part of the 1920's. The rise in consumption was made possible by an increase in almond imports. During 1935-36, unshelled almonds were shipped into the United States in substantial quantities for the first time since 1929. The average farm price of almonds also rose sharply in 1935, exceeding the average farm price of improved varieties of pecans for the first time. With regard to 1936, the short domestic crop, in combination with great uncertainty over the European supply, points to still higher prices. The same factors also indicate both lower consumption and lower imports.

The 1936 pecan crop will probably be the shortest since 1923, the expected production being approximately 16,800 tons, only 35 percent of the 1935 bumper crop. The production in the States east of the Mississippi River, where most of the improved varieties are produced, is expected to be approximately 9,000 tons, 92 percent as large as in 1935, whereas in the western States the crop, which is mostly of seedling and wild varieties, is expected to be 7,850 tons, only 20 percent of the 1935 figure. It is probable that for the first time the production of seedling and wild varieties and the production of improved varieties will be about equal. Over a period of years, a moderate rate of increase in production is probable, together with an increase in the proportion of improved varieties produced. Production may be expected to fluctuate widely from year to year, as it has in the past. Early in 1936 a program of encouraging exports of improved varieties was undertaken by the Federal Government. Payments of 5 cents per pound were made to exporters on exports totaling approximately 400 tons.



Tree nuts - 2.

The expected 1936 Persian (English) walnut production of 43,500 tons is 21 percent below the 1935 record production, but is 19 percent above the 1930-34 average. Heavy production of walnuts in the United States is in line with the trend in bearing acreage and in production, which has been upward for many years. In view of the prospects for continued heavy production, it seems probable that walnut producers will not receive as high prices in the future as in the past, at given levels of consumer income. Another factor pointing in the same direction is the narrowed margin between the price of improved varieties of pecans and the price of walnuts. Over the period 1927 to 1930, the farm price of improved pecans averaged 12.6 cents per pound above the farm price of walnuts; but in 1931 the pecan price fell very sharply, and over the period 1931 to 1935, the margin has averaged only 3.4 cents per pound.

Since October 1933 the walnut industry has been operating under a marketing agreement. Protection of the domestic unshelled walnut market has been the chief aim of the control program instituted under the agreement. It has been accomplished by diverting a part of the merchantable crop into the export and the domestic shelled markets, sales in these markets being made at prices lower than those prevailing in the protected market. In the marketing of the 1935 crop, a new feature was added to the program in the payment by the Federal Government of approximately 5 cents a pound on the quantity diverted from the domestic unshelled market. Under the program the United States has become an exporter of unshelled walnuts, to the amount of 5,000 or 6,000 tons annually.

The production of filberts is expected to amount to 1,200 tons in 1936, which is 33 percent above the 1935 production and twice as great as the 1930-34 average production. So far the consumption of domestic filberts makes up only one-fifth to one-fourth of the total United States filbert consumption, and amounts to less than 1 percent of total tree nut consumption.

The consumption of cashew nuts, which rose from a negligible quantity in the years before 1928 to an estimated 17.4 percent of total tree-nut consumption in the crop year October 1934 to September 1935, fell back to 11.3 percent last year, 1935-36. It is probable, however, that this drop in relative importance is temporary.

Since imported nuts make up a large percentage of the tree nuts consumed in the United States, the import duties that must be paid on them are an important element in the determination of tree nut prices and consumption. Tariffs on tree nuts were raised sharply by the Tariff Act of 1922, and were raised again by the Tariff Act of 1930. The reciprocal trade agreement with Brazil, which took effect January 1, 1936, lowered the tariff on Brazil nuts from  $1\frac{1}{2}$  cents to  $3/4$  cents a pound on unshelled nuts, and from  $4\frac{1}{2}$  to  $2\frac{1}{2}$  cents a pound on shelled nuts.



## TREE NUTS

General Outlook

The outstanding features of the long-range outlook for tree nuts (nuts other than peanuts) appear to be (1) continuation of the upward trend in production, (2) further increases in consumption of cashews, (3) reduced importance of almonds in the total consumption of all tree nuts and (4) keener competition of pecans with other nuts, probably walnuts in particular. With regard to the 1936 crop, the outlook is for higher prices, since the pecan, almond, and Persian (English) walnut crops are all expected to be substantially smaller in 1936 than they were in 1935. The 1936 filbert crop is expected to be larger than the preceding one, but it forms such a small fraction of the combined production of all tree nuts that it has little influence upon the total. The following table shows the expected 1936 production, the 1935 production, and the average production from 1930 to 1934 of walnuts, pecans, almonds, and filberts.

## U. S. nut production

|                     | Expected,<br>1936 | 1935      | Average,<br>1930-34 | Expected as a<br>percentage |            |
|---------------------|-------------------|-----------|---------------------|-----------------------------|------------|
|                     | 1000 tons         | 1000 tons | 1000 tons           | of 1935                     | of average |
| Persian Walnuts     | 43.5              | 55.2      | 36.7                | 79                          | 119        |
| Pecans              | 16.8              | 47.7      | 28.5                | 35                          | 59         |
| Almonds             | 7.5               | 9.3       | 13.2                | 81                          | 57         |
| Filberts            | 1.2               | 0.9       | 0.6                 | 133                         | 200        |
| Combined Production | 69.0              | 113.1     | 79.0                | 61                          | 87         |

The long-run trend in tree nut production in the United States has been upward for many years. After a sharp rise from 1917 to 1927, production made only small further gains until 1935, when a new peak was reached well above any previous level. Although this peak may not be reached again soon, the total United States bearing acreage in tree nuts will increase considerably during the next few years, and unless there is unforeseen abandonment of acreage or pulling of trees a combined nut crop in the neighborhood of 100,000 tons will probably become typical rather than exceptional. This means lower prices for tree nuts than in the past at given levels of consumer income, if the increased production is to be moved into consumption.

# Tree nuts - 4.

Unlike domestic production, imports of tree nuts have shown a steady decrease since the early 20's so that they are now only 55 to 60 percent as great as they were 10 years ago.

The following table is designed to show the trends in domestic production and imports over the last 14 years:

Trends in United States tree nut production and imports

| Crop Year<br>(Oct.-Sept.)      | Production      |               | Imports for<br>consumption<br>(shelled basis) |
|--------------------------------|-----------------|---------------|---|
|                                | Unshelled basis | Shelled basis |   |
|                                | 1000 tons       | 1000 tons     | 1000 tons                                     |
| Average,<br>1922-23 to 1924-25 | 51.8            | 19.6          | 48.2  |
| Average,<br>1925-26 to 1929-30 | 74.8            | 28.3          | 41.4  |
| Average,<br>1930-31 to 1934-35 | 79.0            | 29.9          | 29.8  |
| 1935-36                        | 113.0           | 43.5          | 28.1*   |

\*Preliminary

After 1926-27, domestic production of tree nuts increased less rapidly than imports for consumption declined. In other words, total consumption of tree nuts dropped off after 1926-27. As indicated in the table shown below, the decline was especially rapid from 1929-30 to 1932-33. At least a part of the decline during these years must be attributed to the falling off in consumers' income for in 1934-35 and 1935-36, years of rising consumers' income, consumption has recovered part of its losses. Probably further increases in consumers' income will result in further recovery of nut consumption.

Estimated United States per-capita consumption of tree nuts 1/  
(shelled basis)

| Average,<br>1922-23 to<br>1926-27 | Average,<br>1927-28 to<br>1928-29 | Average,<br>1929-30 to<br>1931-32 | Average,<br>1932-33 to<br>1933-34 | Average,<br>1934-35 | 1935-36        |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------|----------------|
| Pounds                            | Pounds                            | Pounds                            | Pounds                            | Pounds              | Pounds         |
| 1.22                              | 1.14                              | 1.03                              | .88                               | .94                 | <u>2/</u> 1.04 |

1/ Includes walnuts, almonds, pecans, filberts, chestnuts, Brazil nuts, cashew nuts, pistachios, and pignolias.

2/ Preliminary.

Tree nuts - 5.

The figure given in the table for 1935-36 is somewhat too high, and the corresponding figure for 1936-37 will probably be too low, because total production of pecans is used as the measure of pecan consumption, whereas there is a sizeable carry-over of pecans from the 1935-36 season into the 1936-37 season. Because no definite figures on the carry-over are available, no adjustment can be made for it.

In 1935-36 total consumption of tree nuts amounted to approximately 66,200 tons (shelled basis), of which 28,100 tons, or 42.5 percent, were imported and 38,100 tons, or 57.5 percent, were produced in the United States. The total 1935-36 consumption was composed as shown in the following table:

Consumption of tree nuts in the United States  
Oct. 1935 - Sept. 1936

| Kind of nut   | Percent of total consumption of all tree nuts |          |         |  |
|---------------|---|----------|---------|--|
|               | Produced in                                   | Imported | Total   |  |
|               | the United States                             |          |         |  |
|               | Percent                                       | Percent  | Percent |  |
| Walnuts       | 26.5  | 2.3      | 28.8    |  |
| Pecans        | 26.2  | --       | 26.2    |  |
| Almonds       | 4.2   | 7.4      | 11.6    |  |
| Cashew Nuts   | --  | 11.3     | 11.3    |  |
| Brazil Nuts   | --  | 9.8      | 9.8     |  |
| Chestnuts     | --  | 8.0      | 8.0     |  |
| Filberts      | 0.6   | 2.3      | 2.9     |  |
| Pistachios    | --  | 1.2      | 1.2     |  |
| Pignolias     | --  | 0.2      | 0.2     |  |
| All tree nuts | 57.5  | 42.5     | 100.0   |  |

Certain trends in the price and consumption data of tree nuts since 1922-23 are so striking as to claim attention.

(1) A downward trend in almond consumption.- With the exception of 2 years, almond consumption declined continuously in relative importance from 1922-23 to 1934-35, falling from second to fifth rank. In last season, 1935-36, almond consumption increased rather sharply but will probably decline again this year because of the short domestic crop and uncertain import situation.

(2) An upward trend in pecan consumption.- Pecan consumption, as indicated by the production estimates, has risen irregularly since 1922-23. The large indicated consumption of 1935-36 will be followed by a small one in 1936-37, but on the average over the last 5 years pecan consumption holds second place, being exceeded only by walnut consumption.

Tree nuts - 6.

(3) A very rapid increase in the consumption of cashew nuts.- Practically unknown to American consumers before 1928-29, cashew nuts rapidly became an important item of consumption within a very few years. In the 1934-35 season, cashew consumption stood second only to walnut consumption. The drop in 1935-36 in the ratio of cashew-nut consumption to total tree-nut consumption is probably temporary.

(4) A narrower spread from 1931 on, between the price of improved pecans and the prices of walnuts and almonds.- After the 1930-31 season, prices for improved pecans fell sharply, with the result that the difference between the farm price of improved pecans and the farm price of walnuts decreased from 12.6 cents per pound, the 1927-28 to 1930-31 average, to 3.4 cents per pound, the 1931-32 to 1935-36 average. Similarly, the spread between the farm prices of improved pecans and of almonds narrowed from 14.4 cents to 3.7 cents per pound.

Since imported nuts make up a large percentage of the nuts consumed in the United States, the import duties that must be paid on them are an important element in the determination of nut prices and consumption. Tariffs on nuts have been raised twice since the World War. The Tariff Act of 1922 raised the average duty on imports of unshelled tree nuts from 1.6 cents per pound to 2.8 cents per pound and on imports of shelled tree nuts from 3.8 cents per pound to 11.5 cents per pound. The Tariff Act of 1930 again raised the duties, the average for unshelled nuts going to 3.9 cents per pound, and for shelled to 14.6 cents per pound. The reciprocal trade agreement with Brazil, which took effect January 1, 1936, lowered the tariff on Brazil nuts from  $1\frac{1}{2}$  to  $\frac{3}{4}$  cents a pound on unshelled nuts, and from  $4\frac{1}{2}$  to  $2\frac{1}{4}$  cents a pound on shelled nuts.

#### Almonds

Domestic production of almonds is expected to be lower again in 1936 at 7,500 tons as against 9,300 tons in 1935. There has been a decline in production each year since 1931, probably because of an increasing degree of neglect and abandonment in areas of high-cost production. A large proportion of the existing bearing trees are so unfavorably situated with respect to both soil and weather conditions that even when prices were at their pre-depression level profitable yields could not be obtained. It is believed that large numbers of these trees have been going out of commercial bearing, especially in view of the low farm prices for almonds from 1930 to 1934. In addition, a long-continued decline in the acreage of trees under bearing age, although checked in 1934, has reduced the proportion of young trees to a point at which there is barely enough of them to replace bearing trees lost through old age and disease.

There is little reason to believe, therefore, that production over the next few years will average any higher than over the last 1 or 2 years. It seems rather probable, on the other hand, that the downward trend in production will not continue much farther, since production has



## Tree nuts - 7.

already fallen to 60 percent of the 1926-31 average and since production may be stimulated by the sharp rise in farm price which occurred in 1935 and by the further rise which will probably occur in 1936.

Almond imports, after decreasing steadily from 1929-30 to 1934-35, increased sharply in 1935-36. Shelled almond imports increased from approximately 1,800 tons to approximately 4,000 tons. Unshelled imports, which had been negligible since the 1929-30 season, jumped to approximately 1,300 tons. With domestic production still smaller in 1936 than in 1935, the import demand for almonds is likely to be still greater in 1936-37 than in 1935-36. European production of shelled almonds is expected to be about the same in 1936 as in 1935, at 64,800 tons as against 63,500 tons. However, of this total, 40 percent is represented by the Spanish crop, and there is great uncertainty as to how much, if any, of the Spanish crop will be available for export. Early in the 1936-37 marketing season, quotations on Italian shelled almonds were 70 percent higher than in the preceding season, and it is expected that they will remain substantially higher, at least for the first 2 or 3 months of the season. Imports of unshelled almonds will also be seriously affected by the Spanish situation, since in past years 80 to 90 percent of the unshelled almond imports into the United States have originated in Spain. Because of the European supply situation, therefore, it is highly probable that almond imports into the United States during 1936-37 will not reach the 1935-36 level.

Following a long downward trend which carried estimated per-capita almond consumption in the United States (on a shelled basis) down from .28 pounds in 1923-24 to .08 pounds in 1934-35, the consumption of almonds rose sharply in 1935-36 to .12 pounds. However, because of the short domestic crop and the probability that the available Mediterranean supply will be substantially below last year's figure, it is likely that per-capita almond consumption will be lower again in 1936-37. Furthermore, the fact that the consumption of almonds declined more between 1929-30 and 1934-35 than that of any other kind of nut and the fact that the consumption of two other kinds of nuts actually increased during the same period suggest that almond consumption will form a less important fraction of total nut consumption for some time to come than it did before 1929.

### Persian (English) Walnuts

Aside from the effects of changes in consumers' income, the important features of the long-time outlook for walnuts appear to be (1) the prospective high level of domestic walnut production, (2) the probability of keener competition from pecans than formerly, and (3) the measures undertaken under the control program for walnuts.

The total orchard-run production of English walnuts in the United States in 1936 is expected to amount to 44,600 tons. Although this is 19 percent under the bumper crop of 1935, it is 21 percent above the 1930-34 average.

## Tree nuts - 8.

A large production is in accordance with expectations, for bearing acreage has been increasing for many years. Following a rapid growth during the years of the World War, California bearing acreage amounted to approximately 59,000 acres in 1920 and reached 117,500 by 1934. In Oregon, production became significant commercially during the 1920's. Oregon bearing acreage was estimated to stand at 15,000 acres in 1934. Nonbearing acreage in 1934 was estimated to be 21,500 acres in California and 12,000 in Oregon.

A severe freeze in November 1935 caused considerable damage to Oregon walnut trees, and it is believed that as a result the upward trend in Oregon production will be halted for a few years. The upward trend in California production shows no sign of slackening, although there is reason to believe that by 1940 the bearing acreage in California will have ceased to expand. The trends in California and Oregon production may be judged from the following table:

Trends of orchard-run production of English walnuts  
in California and Oregon

|             | : Average, :         | : Average, :         | : Average, :         | : Average, :         | : Expected,          |
|-------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|             | : 1916-20 :          | : 1921-25 :          | : 1926-30 :          | : 1931-35 :          | : 1936 :             |
|             | : <u>1000 tons</u> : | : <u>1000 tons</u> : | : <u>1000 tons</u> : | : <u>1000 tons</u> : | : <u>1000 tons</u> : |
| California  | : 20.1 :             | : 26.0 :             | : 32.0 :             | : 40.3 :             | : 42.0 :             |
| Oregon      | : -- :               | : .2 :               | : 1.0 :              | : 2.2 :              | : 1.5 :              |
| Total U. S. | : 20.1 :             | : 26.2 :             | : 33.0 :             | : 42.5 :             | : 43.5 :             |

Since October 1933 the walnut industry has been operating under a marketing agreement. Protection of the domestic unshelled walnut market has been the chief aim of the control program instituted under the agreement. It has been accomplished by diverting a part of the merchantable crop into the export and the domestic shelled markets, sales in these markets being made at prices lower than those prevailing in the protected market. In the marketing of the 1935 crop, a new feature was added to the program in the payment by the Federal Government of approximately 5 cents a pound on the quantity diverted from the domestic unshelled market. Under the control program the United States has become an exporter of unshelled walnuts to the quantity of 5,000 or 6,000 tons annually.

The price that can be returned to growers, under the control program, depends on a number of factors. With reference to the current crop year (1936-37), it appears probable that the domestic market for unshelled walnuts will be better than in 1935-36, because of a lighter pecan crop and expected further improvement in consumers' income. In the domestic market for shelled walnuts, domestic production must meet the competition of kernels imported from China. Since the inception of the control program the volume of shelled walnuts imported has fallen off

markedly, however. In the first 9 months of the 1935-36 marketing season less than 25 percent of the shelled walnuts consumed in the United States were of foreign origin. Apparently, therefore, domestic shelled walnuts are already being sold at a price that meets the competition of imports. The export outlook for the current crop year is less favorable than in 1935-36, for two reasons. First, the ratio of the European supply to the combined European and United States supply is higher, standing at an estimated 64 percent as compared with 57 percent last year. Second, the recent devaluation of the franc and lira lowers the price of French and Italian walnuts in terms of other currencies and in comparison with the price of United States walnuts. France and Italy are the two major walnut-producing countries of Europe and are important competitors with the United States in world markets. On the other hand, in the last 2 years under the control program, the great bulk of export sales has not been made until the September following the walnut harvest. Hence the export outlook for the 1936 crop depends not so much on the European supply-and-price situation in the fall of 1936 as on the situation that will exist in the late summer and early fall of 1937.

### Pecans

The outstanding feature in recent pecan statistics is the narrower spread since 1931 between prices for improved pecans and prices for almonds and walnuts. As long as lower prices for pecans continue, wider markets for pecans and keener competition with other nuts may be expected. On the side of supply, the sharply lowered prices may lead to such neglect of orchards as to offset a large proportion of trees that were under bearing age in 1929.

On the basis of a survey of pecan-tree numbers and ages made in 1929, and with a liberal allowance for mortality among young trees, it was estimated that there would be 20 to 25 percent more trees of bearing age in 1940 than in 1929.

It is believed, however, that there have been important changes since 1929, although in the absence of any more recent comprehensive surveys no exact information is available. In the States east of the Mississippi River, which form the important improved-pecan area, there have been some neglect and abandonment of both bearing and nonbearing trees, and considerable thinning out of those orchards that are receiving good care. The net result will probably be a slightly upward trend of production in the southeastern and Gulf States, with a greater proportion of the crop being produced by the more efficient growers. In Texas and Oklahoma, where the bulk of the wild and seedling pecans are produced, there has been a great deal of top-working of the wild and seedling trees with improved varieties. There has also been some planting of new groves of improved varieties. A third development has been the extensive thinning of native stands to increase their productivity. It appears, therefore, that in the western area the trend of production of both improved and seedling varieties is decidedly upward. Both the 1929 survey

Tree nuts - 10.

and later developments indicate that future crops will be made up of an increasing proportion of improved varieties.

The 1936 production of pecans is expected to amount to 16,800 tons, or 35 percent of the record-breaking 1935 production of 47,600 tons and 58 percent of the 5-year (1930-34) average production of 28,500 tons. Not since 1922 has there been so small a crop. Nevertheless, in the States east of the Mississippi River, where most of the improved pecans are produced, a 1936 crop of 9,000 tons, 114 percent of the 1930-34 average, is expected. It is in the States west of the Mississippi River, where wild and seedling trees predominate, that production is abnormally small. In the Western States, 1936 production is expected to amount to only 7,850 tons, or 20 percent of last year's bumper crop and 38 percent of the 1930-34 average. It is probable that in 1936, for the first time, the production of improved varieties and the production of wild and seedling sorts will be nearly equal. Over the preceding 5 years, production of wild and seedling varieties averaged roughly  $3\frac{1}{2}$  times the production of improved varieties.

Although some of the wild and seedling pecans harvested each year are sold to consumers in the unshelled form, shelling is the main outlet for this type. The improved varieties are largely sold to consumers in the unshelled form.

A program of developing an export market for pecans was undertaken by the Federal Government during 1935-36. Payments of 5 cents a pound were made to exporters on exports of approximately 400 tons of improved varieties of pecans.



## THE PEANUT OUTLOOK FOR 1937

### Summary

The relatively favorable returns which farmers are receiving from peanuts based on October prices, are likely to result in some further increase in plantings of peanuts to be harvested for nuts in 1937. The marketing situation in the 1937-38 season will depend to an appreciable extent on the demand for peanuts for crushing. Stocks of edible oils and fats at the beginning of the 1937-38 peanut marketing season are expected to be further reduced from the low level of the current season but supplies will largely depend on the size of the 1937 cotton crop and the volume of hog marketing. The size of the 1937 cotton crop is uncertain but the small feed production of 1936 indicates a likelihood of small lard supplies when the 1937 peanut crop is being marketed.

Acreage in 1936 was the largest on record but on account of the drought, yields were reduced in some States. The 1936 crop, based on October estimates, will be slightly less than the 1935 record production. Were it not for the favorable crushing outlet the prospective large 1936 crop could not be marketed except at very low prices. This outlet, important in both the 1934-35 and 1935-36 seasons, is expected to be important again in the 1936-37 season.

### Demand for Peanuts for Crushing Increases

Prior to the 1934-35 season (except during the World War period) peanut crushing has not been very extensive and very low-quality peanuts were generally used. The reduced cotton crops and the smaller hog marketings of recent years have resulted in lower production of cottonseed oil and lard. Then there have been increased import duties on edible oils and fats. Crashings of peanuts were greatly increased in the 1934-35 and the 1935-36 seasons. These increased crashings resulted from improved prices for peanut oil and from the diversion programs of the Agricultural Adjustment Administration.

Domestic production of peanut oil during the 1934-35 season amounted to 55,596,000 pounds. In the first 9 months of the 1935-36 season, production was about 13 percent higher than for the same months of the previous season. In addition, there have been increased imports of peanut oil. Imports rose from 7,354,000 pounds, the average for the 5-year period October 1, 1928, to September 30, 1933, to 73,792,000 pounds for the year beginning October 1, 1934. For the first 9 months of the current season imports were about 13 percent less than for the same months of the previous season. October prices for both peanut oil and peanut meal are relatively high and an appreciable quantity of the 1936 crop will probably be crushed for oil.

### General Situation 1936-37 Season

According to October estimates, acreage of peanuts harvested for nuts in 1936 will be about 30 percent and production about 32 percent

above the 1928-32 averages. Should crushings in the current season be as large as in the 1935-36 season, the quantity of peanuts remaining for all purposes, other than crushing, will be only 16 percent greater than the average quantity available for these purposes in the period 1928-32. The record 1935 crop was apparently absorbed by trade requirements and crushings, since stocks of old-crop peanuts at the beginning of the 1936-37 season were reported to be the lightest in many years. Improved consumer incomes have apparently resulted in a higher level of consumption of peanuts and peanut products. Much of the 1936 crop had not been harvested by early October but reports show that prices in the southeastern and southwestern States are averaging about the same as a year earlier.

In the Virginia-North Carolina section where Virginia-type or large-podded nuts are principally grown, peanut acreage and production have tended to show little change in recent years. With consumer incomes showing continued improvement, supplies of Virginia-type nuts are not expected to be excessive. Crushings of peanuts in these States are expected to be limited to the lower grades of peanuts because of the relatively low oil content of Virginia type nuts.

In the southeastern States where both Runner and Spanish type peanuts are grown, peanut production has been increasing. Both acreage and production in 1936, according to October estimates, will be of record proportions. Considerable crushings, especially of Runner-type peanuts, are expected in those States and the demand from crushers should be a strengthening factor in the market situation.

In the southwestern States where Spanish-type peanuts are grown, the 1936 acreage to be harvested for nuts was the highest on record, but, as the drought brought a low yield per acre, the production was sharply reduced from the 1935 level.

# PEANUTS -- 3.

PEANUTS: Acreage harvested for nuts, production, quantity crushed for oil and average prices for farmers stock peanuts, crude peanut oil, and peanut meal for designated years.

| Year             | : Acres     | : Production   | : Peanuts    | : Farm price | : Price per pound | : Price per      |
|------------------|-------------|----------------|--------------|--------------|-------------------|------------------|
|                  | : harvested | : Production   | : crushed    | : per pound  | : of crude peanut | : pound of       |
|                  | :           | :              | : 1/         | : 2/         | : oil 3/          | : peanut meal 4/ |
|                  | :           | :              | :            | :            | :                 | :                |
|                  | : 1,000     | : 1,000        | : 1,000      | : Cents      | : Cents           | : Dollars        |
|                  | : acres     | : pounds       | : pounds     | :            | :                 | :                |
| Average 1928-32: | : 1,346     | : 938,880      | : 72,679     | : 3.2        | : 6.4             | : 29.57          |
| 1932             | : 1,607     | : 1,037,840    | : 65,428     | : 1.5        | : 4.1             | : 18.60          |
| 1933             | : 1,345     | : 905,710      | : 45,000     | : 2.8        | : 4.8             | : 27.13          |
| 1934             | : 1,571     | : 1,063,035    | : 220,280    | : 3.2        | : 9.3             | : 29.28          |
| 1935             | : 1,642     | : 1,264,455    | : 5/ 230,138 | : 3.1        | : 9.0             | : 22.76          |
| 1936             | : 5/ 1,744  | : 5/ 1,233,335 | : -          | : 5/ 3.1     | : 6/ 8.9          | : 6/ 30.00       |

1/ In terms of peanuts in the shell for the year October 1 - September 30.

2/ Seasonal average price for farmers stock peanuts. 3/ Average f.o.b. price at southeastern mills for year October 1 - September 30.

4/ Average f.o.b. price at southeastern mills for peanut meal of 45% protein for year September 1 - August 31.

5/ Preliminary estimate. 6/ Estimated price October 1, 1936

PEANUTS: Acreage and production distributed to the different producing regions for designated years.

## PRODUCING SECTION

| Year             | : Virginia, North Carolina | 1/           | : Southeastern States | 2/           | : Southwestern States | 3/           |
|------------------|----------------------------|--------------|-----------------------|--------------|-----------------------|--------------|
|                  | : Acreage                  | : Production | : Acreage             | : Production | : Acreage             | : Production |
|                  | : 1,000                    | : 1,000      | : 1,000               | : 1,000      | : 1,000               | : 1,000      |
|                  | : acres                    | : pounds     | : acres               | : pounds     | : acres               | : pounds     |
| Average 1928-32: | : 399                      | : 401,989    | : 727                 | : 420,763    | : 220                 | : 116,127    |
| 1932             | : 429                      | : 441,000    | : 920                 | : 455,235    | : 258                 | : 140,855    |
| 1933             | : 319                      | : 301,350    | : 788                 | : 456,126    | : 238                 | : 148,240    |
| 1934             | : 397                      | : 418,470    | : 920                 | : 553,100    | : 254                 | : 91,465     |
| 1935             | : 391                      | : 423,725    | : 370                 | : 672,060    | : 231                 | : 162,670    |
| 1936 4/          | : 403                      | : 417,775    | : 1,041               | : 630,175    | : 300                 | : 125,335    |

1/ Includes Virginia, North Carolina and Tennessee.

2/ Includes South Carolina, Georgia, Florida, Alabama and Mississippi.

3/ Includes Texas, Oklahoma, Arkansas and Louisiana.

4/ October forecasts.





## THE DRY BEAN OUTLOOK FOR 1937

### Summary

The 1936-37 supply of beans is considerably short of the 5-year average owing to a much smaller than usual yield in the Pea bean area, to a harvested United States acreage somewhat below average, and to an apparent increase in consumption this year. Prices advanced sharply during the summer and will probably remain well above the average of recent years through the principal marketing period for the 1936 crop. The need to import beans over the 3-cent tariff barrier will tend to maintain prices at above the 5-cent level.

These prices may encourage the planting of an acreage in 1937 so large as to invite the probability of a crop above trade requirements at prices remunerative to growers. An increase in the total United States harvested acreage of 1937 only 3 percent above that of 1936 would with average yields produce approximately 12,000,000 bags, a crop about equal to the average of the last 5 years, excluding the big crop of 1935. In view of another small carry-over of beans next fall in producing areas and the apparent gain in consumptive demand a somewhat greater increase than this would seem desirable, but acreage changes should be decided on the basis of demand for the particular type being grown. Some increase in acreage in the Pea bean, Great Northern, and Pinto sections particularly, appear to be justified but in each of these sections there is a probability of overplanting.

### General Situation

The October 1 indicated production of dry edible beans in 1936 is for only 10,737,000 bags. With a carry-over estimated at less than 1,000,000 bags, the total domestic supply available for use during the 1936-37 season is about 20 percent (3,000,000 bags) less than that of a year ago, and 10 percent less than the 5-year average. This reduction in supply is due largely to unfavorable yields of Pea beans this year and to an apparent increase in consumption of beans during the 1935-36 season. A year ago, with abnormally heavy supplies, it appeared that the carry-over of beans at the end of the 1935-36 marketing season might be one of the largest on record. The poor early prospects for the 1936 crop, however, tended to encourage buying of old crop beans by wholesale distributors in consuming sections. This movement was largely responsible for reducing the visible carry-over. Actual consumption of beans was probably not so heavy as the total disappearance from producing sections would indicate, although in the drought areas it appears to have been unusually heavy.

There is no dependable measure of the actual consumption of beans in this country other than the long-time annual supply and disappearance which indicate the utilization of about 12,000,000 bags annually. Some upward trend in utilization is probable.

In the past, whenever changes in the prices of beans to the general price level of other farm crops were similar to those existing this fall, growers have tended to increase bean acreages from 10 to 20 percent the following year. An increase next year is therefore to be expected, and is likely to be

greater than needed. The total acreage of dry edible beans for harvest in 1936 was only about 6 percent less than in 1935, when almost 14,000,000 bags were harvested. With 10-year average yields, (1923-32), the 1936 acreage would have produced about 11,600,000 bags. This is about 500,000 bags less than the average annual domestic disappearance plus shipments to United States possessions.

An increase in the acreage for harvest in 1937 is obviously justified, but acreage changes should be made with due consideration of the normal supply and average yields of the particular types.

The average farm price of beans during the marketing season for the 1935 crop was 70 cents per hundred pounds below the average for the 1934 crop. Prices were low until the sharp advance during the months of July and August when the effects of the 1936 drought began to be realized. The apparent necessity for imports to supplement the supply of Pea beans will tend to maintain prices at or above the 5-cent level.

Average Farm Price of Beans (per 100 lbs.)  
by months and for the Crop-Marketing Season.

| Month   | Average<br>1928-32 | 1933-34 | 1934-35 | 1935-36 |
|---|--------------------|---------|---------|---------|
| September   | \$4.98             | \$3.29  | \$3.83  | \$3.08  |
| October   | 4.69               | 2.64    | 3.83    | 2.89    |
| November  | 4.46               | 2.85    | 3.56    | 2.67    |
| December  | 4.37               | 2.64    | 3.43    | 2.44    |
| January   | 4.34               | 2.70    | 3.51    | 2.61    |
| February  | 4.38               | 2.82    | 3.50    | 2.85    |
| March   | 4.29               | 2.75    | 3.62    | 2.86    |
| April   | 4.21               | 2.61    | 3.63    | 3.00    |
| May   | 4.52               | 2.61    | 3.62    | 3.02    |
| June  | 4.43               | 2.74    | 3.54    | 2.96    |
| July  | 4.40               | 2.79    | 3.41    | 3.76    |
| August  | 4.53               | 3.19    | 3.26    | 4.33    |
| Weighted<br>average for<br>crop market-<br>ing season | 4.48               | 2.79    | 3.56    | 2.86    |

Imports for consumption during the crop-marketing seasons 1931-35 ranged from 18,000 to 389,000 bags, averaging about 153,000 bags annually. Exports to foreign countries during this period were relatively small, ranging from 55,000 to 100,000 bags annually. Shipments to non-contiguous United States territory have not changed materially, ranging during the last 5 years from 271,000 to 407,000 bags annually and reaching a total of only 350,000 bags during the 1935 crop-marketing season. In view of the relatively short supply and improved prices, the imports are likely to be larger during the 1936 crop-marketing season than in any of the last 5 years, while exports may be smaller.

Dry Beans - - 3.

Supply and Distribution of Beans

|  | Average<br>1928-29<br>1932-33 | 1933-34 | 1934-35 | 1935-36 | 1936-37 |
|--|-------------------------------|---------|---------|---------|---------|
|  | <u>Thousands of bags</u>      |         |         |         |         |
| Production   | 11,858                        | 12,338  | 10,369  | 13,799  | 10,737  |
| Carry-over <u>1/</u>                               | 1,095                         | 1,250   | 2,000   | 1,150   | 1,000   |
| Imports  | 653                           | 158     | 389     | 147     |         |
| Total supply                                       | 13,606                        | 13,746  | 12,758  | 15,096  |         |
| Exports and<br>re-exports                          | 254                           | 79      | 55      | 92      |         |
| Shipments to<br>non-contiguous<br>U.S. territories | 286                           | 333     | 271     | 332     |         |
| Domestic<br>disappearance                          | 11,835                        | 11,334  | 11,282  | 13,672  |         |
| Carry-over <u>2/</u>                               | 1,231                         | 2,000   | 1,150   | 1,000   |         |
| Total  | 13,606                        | 13,746  | 12,758  | 15,096  |         |

1/ Stocks in warehouses and elevators in <sup>main</sup> producing sections at beginning of crop marketing season September 1.

2/ Stocks at end of season.

### Pea Beans

Carry-over of old crop Pea beans on September 1, 1936, based largely on trade estimates, is smaller than in 1935 and much smaller than was expected earlier in the season. The 1935 production of Pea beans was one of the largest on record and prices paid to growers were 30 cents to 40 cents per 100 pounds lower than for competing types of beans in other States. With prospects of a short 1936 crop of Pea beans, prices to growers advanced sharply during July and August. If the higher price levels are maintained, there will be a tendency to increase the 1937 acreage in States that produce Pea beans. With yields equal to the 10-year average, an acreage in 1937 equal to that harvested in 1936 would give a crop about equal to the 5-year average of the years 1928-32 and an acreage increase of 5 percent would make it about equal to the crops of 1933 and 1934 while such a crop would be far below the large crop of 1935 for which producers received an average price of about \$2.10 per 100 pounds, notwithstanding generally increasing price levels.

### Great Northern Beans

In Idaho, Montana, Wyoming, and Nebraska, yields per acre are expected to be slightly above those of 1935, about 1 percent less than the 5-year average (1928-32) and 5 percent above the 10-year average. The total 1936 acreage, however, was about 14 percent less than that of 1935 and 6 percent less than the 5-year (1928-32) average, when Great Northern acreage was at its peak. About two-thirds of the beans produced in these States during the last 3 years were Great Northerns, representing practically the entire domestic production of this class. On this basis the indicated new crop of Great Northerns would be about 200,000 bags less than in 1935 and 185,000 bags less than the high average for the years 1928-32. The carry-over on September 1 is unusually small, about 37 percent of that of 1935. Prices of Great Northerns advanced appreciably during the summer of 1936 as a result of increased demand brought by drought conditions and because of the prospective short crop of competing types - Pea beans. It is probable that the 1937 bean acreage in these States will be increased considerably.

If 10-year average yields be assumed for 1937, an increase in the harvested acreage of 13 percent over that of 1936 would produce a crop equal to the high 1928-32 average, and only about 100,000 bags less than the average of 1933 and 1935 crops when prices fell to low levels. If the 5-year average yield be assumed, this production would be secured with a 7 percent increase in acreage.

### Pinto Beans

The yields of beans in the Pinto producing States of Colorado and New Mexico were reduced by drought. The estimated production in these States based on conditions October 1 is 1,371,000 bags, most of which are Pintos, which is about 12 percent less than 1935. To this will be added the production of Pintos in California and Kansas. This will probably increase the total production of Pintos to about 1,650,000 bags.. The carry-over in warehouses in producing States on September 1 is estimated to be not over 100,000 bags. The indicated total supply is about 250,000 bags less than the supply in 1935 which was about equal to the 5-year average (1928-32). Large acreages of these beans can be planted and grown at small expense in the semi-arid sections of Colorado and



New Mexico if the weather is propitious. The 1936 acreage in those States alone was large enough to produce a crop of almost average size, had average yields been secured. In view of the relatively high prices prevailing for Pinto beans during the last 2 years, however, a big increase in acreage may be expected in those States in 1937 if planting conditions are even moderately favorable. Pinto growers will realize that the 1937 crop will probably have to meet the competition of a larger than usual crop of other beans.

#### Lima Beans

The indicated 1936 production of all Lima beans in California is 1,760,000 bags, compared with 1,526,000 bags in 1935 and an average of 1,497,000 bags for 1928-32. Practically all of this increased production is due to increase in Baby Limas, the crop of which is estimated at about 770,000 bags. This is about 43 percent larger than the 1935 production of Baby Limas, which was slightly larger than the average for 1928-32. The carry-over of both standard Lima and Baby Lima beans is unusually small. The total supply of standard Limas will be somewhat less than a year ago and about equal to the average for 1928-32. The increase in production of Baby Limas more than offsets the smaller carry-over and the total supply of all Lima beans will be about 6 percent greater than in 1935 and 22 percent greater than the average for 1928-32.

#### Pink Beans

Stocks of Pink beans in warehouses in California on September 1 were 255,000 bags. After making allowance for receipts of early harvested beans of 1936, the carry-over of the old crop is estimated at 220,000 bags, which is the largest since 1924. This compares with 29,000 bags in 1935 and an average of 48,000 bags for 1928-32. Shipments of Pinks to Puerto Rico during the 1935 crop-marketing season were about 20 percent greater than the previous year. Due to unsatisfactory spring prices, the acreage planted to Pinks in 1936 was reduced from that of 1935, and the expected decrease in production may offset in part the heavy carry-over.

#### Blackeyes

The acreage of Blackeyes was increased in 1936 and production will probably be equal to or greater than in 1935.



## THE TOBACCO OUTLOOK FOR 1937

### Summary

Prospects are for further improvement in the general market outlook for tobacco, principally because of reduction in stocks. Domestic consumption of manufactured tobacco products is expected to continue to increase but, with the possibility of some decrease in exports of leaf tobacco, indications are that the disappearance of American tobacco in the 1936-37 season will not vary greatly from that of 1935-36.

The 1936 crop, which was curtailed partially by the drought, will result in a further reduction in the stocks of many types by the beginning of the 1937 marketing season. The types which will benefit most from reduced stocks are burley, cigar, and dark air-cured types which are consumed largely in the domestic market. Less improvement is expected for flue-cured and Maryland, which depend to a considerable extent on foreign markets. For the fire-cured types little improvement can be counted on because the export situation is unfavorable.

### Domestic Situation

Cigarette consumption which has been increasing since 1933 will prove to have been at record levels in 1936. The first 8 months of 1936 showed a gain of 11.4 percent in cigarette consumption as compared with the similar period of 1935. Cigar consumption is also increasing and slight increases are indicated for snuff, smoking tobacco, and chewing tobacco. Consumption of manufactured products, in view of the expected increase in consumer incomes, will probably show further increases.

### Summary by types

Flue-cured. Domestic consumption increasing, but may be offset by lower exports. Estimated requirements for 1936-37 little if any greater than 1936 production. No material increase in production appears justified.

Burley. Three years of low production have reduced stocks. Increased supplies of smoking grades needed. Increased plantings over the acreage harvested in 1936 appear desirable.

Maryland. Domestic consumption is increasing, but exports are down to one-half of 1924-28 level. Stocks burdensome.

Fire-cured. Little change in rate of domestic consumption, although snuff consumption has increased moderately above the low level of 1935. Exports declining. Drought-curtailed crop of 1936 will probably reduce stocks by October 1, 1937. No increase in acreage seems justified.

Dark air-cured. Recent years of low production have greatly reduced stocks. Domestic consumption fairly stable. Exports showing some increase. A limited increase in production seems justified.

Cigar types. Low production for 4 years has reduced stocks. Cigar consumption increasing steadily and increased acreage of most types appears justified. Consumption of scrap chewing has increased slightly during the past year.

### The Foreign Situation

The outlook for the foreign demand for light types of tobacco, chiefly flue-cured, in 1936-37 is fairly good, while that for dark tobacco, chiefly fire-cured, remains unfavorable.

American tobacco continues to be subject to increased competition from foreign production, stimulated by governmental action within many of the consuming countries and in their colonies. The shift that has been in evidence in recent years towards consumption of milder tobacco products has tended to favor flue-cured and Oriental types at the expense of dark types. Production of tobacco similar to United States fire-cured and dark air-cured leaf in reporting foreign countries increased from an average of 343,000,000 pounds for the period 1926-27 to 1930-31 to an average of 398,000,000 pounds for the period 1931-32 to 1935-36. Flue-cured production in the six principal producing foreign countries for which statistics are available increased from 136,000,000 pounds in 1930-31 to 250,000,000 pounds in 1933-34 and to 267,000,000 pounds in 1935-36. Consumption of products containing flue-cured tobacco also has been on the increase in these countries.

During the year 1935-36, exports of unmanufactured tobacco from the United States were higher than in any of the last 5 years, except 1933-34, being 16 percent above those of the previous year. However, for the 5-year period ended June 30, 1936, exports averaged 422,000,000 pounds, export weight, as compared with an average of 553,000,000 pounds during the preceding 5 years. Exports of flue-cured tobacco during this period decreased relatively much less than those of the fire-cured and dark air-cured types. Exports of tobacco to the Far East, to Canada, Australia and a number of countries in Europe have shown material reductions. The decline in exports to the Far East is due to the rapid increase in production of flue-cured tobacco in China and Japan. Various causes have brought about reductions in exports to other countries, such as the substitution of domestic or other foreign tobacco for American, changing consumer preferences, and trade restrictions. Exports to the United Kingdom, the principal market for flue-cured tobacco, have held up well, notwithstanding the preferential import duty in favor of British Empire tobacco, and there is some evidence of improved demand in the countries of northern Europe. Continuance of severe trade restrictions in Germany and unsettled conditions in Spain are likely to affect adversely the exports of American tobacco to these countries.

#### Flue-cured Tobacco, Types 11, 12, 13, and 14

No material change in the disappearance of flue-cured tobacco is anticipated between now and the beginning of the next marketing year. Some increase in domestic consumption is probable, but it does not seem likely that exports this year will equal the high level attained last year. Present estimates of the 1936 crop are not greatly different from the total of anticipated consumption and export requirements for the current year, so that no material change in stocks by next July is anticipated. Under these conditions, the principal factor affecting the outlook for 1937 will be the 1937 production. Prices for the 1936 crop, which are above those for 1935, will probably stimulate increased plantings in 1937. If this should result in materially increased production the price outlook would be adversely affected.



Notwithstanding the much smaller production of flue-cured tobacco in 1936 than in 1935, the total supply in the United States as a result of the carry-over from the large crop of 1935 is only slightly smaller than it was a year ago. However, at the present record level of domestic consumption of flue-cured tobacco, these stocks do not appear to be excessive.

The increase in domestic consumption of flue-cured tobacco has occurred largely in the use of cigarettes, which provide an outlet for more than 75 percent of the flue-cured tobacco used in this country. The remaining flue-cured tobacco consumed domestically is used in smoking tobacco and plug chewing, the consumption of which has not changed significantly during the last 4 years.

Exports of flue-cured tobacco for the 1935 marketing year totalled 375,000,000 pounds, farm weight, as compared with 280,600,000 pounds for 1934, 389,500,000 pounds for 1933, and 426,200,000 pounds on the average for the period 1928-32. The increased exports during the 1935 marketing year, compared with 1934-35, were mainly to the United Kingdom, the principal foreign user of United States flue-cured tobacco. Exports to the United Kingdom reached a record level during 1935-36 owing partly to requirements for building up stocks. These stocks, which had been depleted by increased consumption and by small imports from the short crop of 1934, now appear to have been largely replenished, and it is anticipated that takings of this year will be in line with the current rate of consumption.

Total unmanufactured tobacco withdrawn from bond for manufacture in the United Kingdom during the 12 months ended June 30, 1936, was approximately 5 percent more than the quantity withdrawn during the preceding 12 months, and the largest on record. Withdrawals of Empire tobacco increased about 8 percent during this period compared with an increase of 4.6 percent in the withdrawals of United States tobacco. However, the proportion of total consumption that is obtained from Empire sources is still below the high point reached in 1933.

The currently marketed crop of Southern Rhodesia is estimated to be about 10 percent less than last year's crop. Although the 1936 flue-cured acreage of Canada was greater than that of last year, the crop was reduced by severe frost damage. These two countries supply most of the Empire-grown flue-cured tobacco used in the United Kingdom.

China, which is the second largest foreign user of United States flue-cured tobacco, took much smaller quantities in 1934 and 1935 than in previous years. Exports to China were only 27,600,000 pounds, farm weight, in 1935-36 and 29,500,000 pounds in 1934-35, compared with more than 100,000,000 pounds during each of the years from 1928-29 to 1930-31. Present Chinese stocks of United States flue-cured tobacco are reported to be very low, and it is expected that exports to China from the 1936 crop will exceed those during each of the last 2 years. However, production of flue-cured tobacco in China has increased steadily since the World War and continues to expand. The 1936 crop is currently estimated at more than 175,000,000 pounds, which is the largest on record. In recent years high internal taxes on manufactured cigarettes containing a large proportion of American tobacco have tended to shift consumption to cheaper cigarettes containing a high proportion of Chinese tobacco, the taxes on which are much lower.

In Japan the consumption of products containing flue-cured tobacco has increased from around 25 percent of the total consumption in 1930-31 to approximately 45 percent of the total at the present time. Production of flue-cured tobacco in Japan, Chosen, and Manchuria is being encouraged in response to this increased consumption. Flue-cured acreage in Japan is estimated at 37,000 acres in 1936 compared with 33,000 in 1935 and 20,000 acres on the average during the 5-year period 1930-34. It appears that Japanese takings of United States flue-cured tobacco will be maintained at around the present level of 7,000,000 to 9,000,000 pounds.

Prospects appear reasonably favorable for flue-cured exports to the Netherlands, where trade with the United States has been favorably affected by reciprocal trade agreements, and to the countries of northern Europe where business conditions are generally good and there has been a shift toward the increased use of cigarettes, especially those containing a large proportion of flue-cured tobacco.

Takings of United States flue-cured tobacco by Australia, which reached a low point of 10,000,000 pounds in 1932-33, have steadily risen since that time, being 21,000,000 pounds in 1935-36.

Exports of flue-cured tobacco to other countries probably will show little change during the current year.

#### Burley Tobacco, Type 31

For the third successive year disappearance of burley tobacco will exceed production. This has brought about a sharp decrease in the total supply and has reduced the ratio of supply to disappearance from 4 to 1 on October 1, 1933, to 2.9 to 1 on October 1, 1936. It is expected that stocks a year hence will be about normal for the present level of consumption so that the production of a crop in 1937 approximately equal to current consumption appears justified. With a yield of 800 pounds per acre an acreage of from 375,000 to 400,000 acres in 1937 would not seem to be excessive. This would be about 25 percent above the estimated 1936 acreage but more than 20 percent below the 1933 acreage.

Stocks of burley tobacco which reached the record figure of 820,000,000 pounds, farm weight, on October 1, 1934, are expected to decline to around 600,000,000 pounds by October 1, 1937. Meanwhile, disappearance of this type of tobacco has increased steadily during the last 4 years, and some further increase is probable. Domestic consumption, representing about 95 percent of the total utilization, has been increased by the expanding consumption of cigarettes. Burley is also used in the manufacture of smoking and chewing tobacco, the consumption of which has not changed significantly during the last 4 years.

Annual exports of this type, which are relatively unimportant, have varied from around 10,000,000 pounds to approximately 16,000,000 pounds, farm weight, in recent years.

### Maryland Tobacco, Type 32

The outlook for Maryland tobacco appears to be uncertain, and to depend upon the extent to which domestic consumption may increase to compensate for losses in the foreign trade. These losses have been significant. Exports, which averaged around 15,000,000 pounds annually during the 5-year period 1924-28, averaged only 10,000,000 pounds a year from 1929 to 1933 and dropped to 4,900,000 pounds in 1935. While an increase to around 7,000,000 pounds in 1936 seems probable, there are no present indications that exports will recover to the level of the 1924-28 period.

On the other hand, there has been a steady annual increase in domestic consumption. Maryland tobacco is used in cigarettes and since the consumption of these is increasing this outlet for Maryland tobacco should make a corresponding expansion. It is reported also that some tobacco of this type has recently been blended with cigar types for short filler cigars, but the extent of this or its permanence is uncertain. Stocks, which have increased steadily from an average of 21,700,000 pounds during the 1928-32 period, reached 38,600,000 pounds on January 1, 1936, and it seems doubtful if they will be much if any lower on January 1, 1937.

### Fire-cured Tobacco, Types 21, 22, 23, and 24

The outlook for fire-cured tobacco, types 21, 22, 23, and 24, continues unfavorable and offers no encouragement for increases in production. Although snuff production, the principal domestic outlet for these tobaccos, has increased slightly from the low level of 1935, the principal increase in domestic consumption in 1935-36 resulted from the byproducts-diversion program of the Agricultural Adjustment Administration. Exports continue to decline.

Based on October estimates, the 1936 crop will be the smallest in years, largely because of the drought, and less than the disappearance for any recent year. Although it appears probable that stocks on October 1, 1937, will be somewhat reduced, they will still be relatively large. The foreign situation offers little promise of improvement. Many countries that formerly imported these tobaccos now produce a larger share of their supplies or obtain them from their colonies. Also, foreign consumption of these tobaccos has been adversely affected by the trend toward milder tobaccos. Possibilities of any increase in exports to France and some of the smaller European countries appear to be more than offset by continued trade restrictions in Germany and unsettled conditions in Spain.

### Dark Air-cured Tobacco, Types 35, 36, and 37

Some further improvement is indicated in the general situation for dark air-cured tobacco, types 35, 36, and 37, because of continued reductions in stocks. A limited increase of production in 1937 seems justified.

Production during recent years has been less than disappearance. The 1936 crop was materially reduced by drought and according to October estimates will be the lowest in many years and materially below current disappearance.



Because of decreasing output of chewing tobacco and leaf exports, the trend in disappearance of these types of tobacco has been downward for more than a decade. Although both domestic utilization and leaf exports have increased over the low level of the 1933-34 season, there are no present indications that disappearance will continue to increase. The 1935-36 rate of disappearance appears likely to be maintained in the 1936-37 season.

Cigar Tobacco, Types 41-45, 51-55, and 61-62

The outlook for most types of cigar tobacco is good and an increase in acreage in 1937 seems to be justified, especially in those types yielding small proportions of the stemming grades. In 1936, for the fourth consecutive year, the production of cigar tobacco was less than the quantity consumed and dealers' and manufacturers' stocks have been reduced by about 100,000,000 pounds during the 4-year period. With the 1936 crop below the level of consumption, stocks will be still smaller at the beginning of the 1937 marketing year. Indications are that the large stocks held by growers in 1932 and 1933 have been almost completely liquidated. Cigar output in the United States has increased in 1936, for the third consecutive year. The increase for 1935 was 3.6 percent over 1934. Present indications are that for 1936 the total will be around 9 percent greater than in 1935, and about 10 percent below the 5-year average 1928-32. Although the manufacture of scrap chewing tobacco has increased slightly in 1936, it is still nearly 32 percent below the average for the 1928-32 period.

The 1936 crop of cigar tobacco, as estimated on October 1, is about 11 percent larger than the 1935 crop, but because of reduced stocks the estimated supply (stocks plus production) at the beginning of the 1936 marketing season is 5.5 percent smaller than that of a year ago. The indicated supply for the year is 93,000,000 pounds less than the average for the 5-year period 1928-32, a decrease of 18 percent. Consumption of cigar leaf for 1935-36 was nearly 15 percent below that of the 1928-32 period, so that the present ratio of supply to consumption is about the same as the average of the 5-year period.

In recent years there has been little change in the proportion of stocks that are of the cigar-manufacturing grades, as contrasted with the stemming grades which are used chiefly in scrap chewing tobacco. The supply position of the stemming grades, as a result of the reduced consumption of scrap chewing tobacco, continues to be unfavorable. On the other hand, the position of the cigar grades, the consumption of which has been increasing, has been greatly improved.

Filler types 41-45. The 1936 production of filler types is estimated as of October 1 to be approximately 47,000,000 pounds, which is less than the current rate of consumption. Stocks of these types are slightly larger than the 1928-32 average, but the total supply is about 9 percent smaller. Further, stocks reports indicate that a greater decline has taken place in the supply of cigar-filler grades than in that of the stemming grades. Since the bulk of the tobacco of these types is used for cigar fillers, an increased acreage in 1937 appears justified.



Binder types 51-55. The October 1 estimate of binder types indicates a production of approximately 40,000,000 pounds with estimated consumption in excess of 60,000,000 pounds. The October 1 stocks and the prospective total supply of binder types are well below the average for the period 1928-32, and it is probable that supplies of cigar-manufacturing grades are relatively much lower than those of stemming grades, stocks of which still appear to be excessive. The outlook for type 54, southern Wisconsin, is less favorable than for other binder types, due to the high percentage normally used in scrap chewing, and the abundant supplies already available for this purpose. With respect to binder types other than type 54 a substantial increase in acreage in 1937 appears to be warranted.

Wrapper types 61-62. Disappearance of type 61 tobacco during the year ended June 30, 1936 was slightly greater than the quantity produced in 1936. As stocks are slightly below the usual ratio to disappearance the outlook seems favorable for a moderate increase in acreage in 1937. The supply of type 62 tobacco is near normal in relation to the present rate of disappearance and a crop equal to that of 1936 would appear to be desirable in 1937.

United States Tobacco, all types combined: Acreage, production, stocks, supply, disappearance, exports, ratio of supply to disappearance, and price; average 1928-32, annual 1932-36

| Year              | Acreage harvested | Production     | Stocks beginning of marketing year | Disappearance during marketing year | Exports during marketing year | Ratio of total supply to disappearance | Season average farm price per pound |
|-------------------|-------------------|----------------|------------------------------------|-------------------------------------|-------------------------------|--|-------------------------------------|
|                   | 1,000 acres       | Million pounds | Million pounds                     | Million pounds                      | Million pounds                | Ratio                                  | Cents                               |
| 1928-32 5-yr. av. | 1,371.9           | 1,427.2        | 1,848.3                            | 3,276.0                             | 1,336.5                       | 2.5                                    | 14.0                                |
| 1932              | 1,403.2           | 1,017.3        | 2,303.9                            | 3,321.2                             | 1,182.0                       | 2.8                                    | 10.5                                |
| 1933              | 1,738.4           | 1,371.1        | 2,139.2                            | 3,510.3                             | 1,223.6                       | 2.9                                    | 13.0                                |
| 1934              | 1,278.5           | 1,055.1        | 2,286.7                            | 3,341.8                             | 1,121.9                       | 3.0                                    | 21.3                                |
| 1935              | 1,437.1           | 1,296.8        | 2,219.9                            | 3,516.7                             | 1,329.7                       | 2.6                                    | 18.3                                |
| 1936              | 5/ 1,471.8        | 5/ 1,152.1     | 4/ 2,187.0                         | 4/ 3,339.1                          | ---                           | ---                                    | ---                                 |

1/ Does not include stocks held on farms. Marketing year flue-cured July-June; Maryland, year beginning January following production; other types October-September.

2/ Conversion to farm sales weight subject to revision.

3/ Quantity marketed.

4/ Estimated.

5/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.

Withdrawals of small cigarettes and large cigars, and production of smoking and scrap chewing tobacco; average 1928-32, annual 1932-36

|           | Small cigarettes |          | Smoking tobacco 1/ |         | Large cigars 2/ |          | Scrap chewing 1/ |         |
|-----------|------------------|----------|--------------------|---------|-----------------|----------|------------------|---------|
|           | : Increase       |          | : Increase:        |         | : Increase:     |          | : Increase       |         |
|           | : or             |          | : or :             |         | : or :          |          | : or             |         |
| Calendar  | : decrease       |          | : decrease:        |         | : decrease:     |          | : decrease       |         |
| Year      | Number           | from     | Quantity           | from    | Number          | from     | Quantity         | from    |
|           |                  | preced-  |                    | preced- |                 | preced-  |                  | preced- |
|           |                  | ing      |                    | ing     |                 | ing      |                  | ing     |
|           |                  | period   |                    | period  |                 | period   |                  | period  |
|           | Billions         | Percent  | 1,000 pounds       | Percent | Millions        | Percent  | 1,000 pounds     | Percent |
| 1928-32   |                  |          |                    |         |                 |          |                  |         |
| 5-yr. av. | 112.3            |          | 169,682            |         | 5,731.3         |          | 65,915           |         |
| 1932      | 103.6            | - 8.7    | 190,987            | ✓ 4.4   | 4,442.9         | -16.5    | 50,080           | -18.2   |
| 1933      | 111.8            | ✓ 7.9    | 191,766            | ✓ 0.4   | 4,344.8         | - 2.2    | 44,724           | -10.7   |
| 1934      | 125.6            | ✓12.4    | 193,075            | ✓ 0.7   | 4,597.2         | ✓ 5.8    | 44,786           | ✓ 0.1   |
| 1935      | 134.6            | ✓ 7.2 3/ | 191,752            | - 0.7   | 4,763.9         | ✓ 3.6 3/ | 43,977           | - 1.8   |
| 1st 7 mo. |                  |          |                    |         |                 |          |                  |         |
| 1935      | 78.5             | ✓ 6.3 3/ | 111,216            | - 1.3   | 2,616.0         | ✓ 4.7 3/ | 25,674           | - 4.1   |
| 1936      | 87.4             | ✓11.3 3/ | 114,478            | ✓ 2.9   | 2,836.1         | ✓ 8.4 3/ | 26,376           | ✓ 2.7   |

Compiled from reports of the Bureau of Internal Revenue.

1/ Prior to 1931, production of smoking and scrap chewing tobacco was not published separately by the Bureau of Internal Revenue. Data for the years 1928 through 1930 are estimates.

2/ Does not include cigars shipped from Puerto Rico and the Philippines.

3/ Preliminary.

Production of plug, twist, and fine cut chewing tobacco and withdrawals of snuff

|           | Plug       |          | Twist       |          | Fine cut    |         | Snuff      |         |
|-----------|------------|----------|-------------|----------|-------------|---------|------------|---------|
|           | : Increase |          | : Increase: |          | : Increase: |         | : Increase |         |
|           | : or       |          | : or :      |          | : or :      |         | : or       |         |
| Calendar  | : decrease |          | : decrease: |          | : decrease: |         | : decrease |         |
| Year      | Quantity   | from     | Quantity    | from     | Quantity    | from    | Quantity   | from    |
|           |            | preced-  |             | preced-  |             | preced- |            | preced- |
|           |            | ing      |             | ing      |             | ing     |            | ing     |
|           |            | period   |             | period   |             | period  |            | period  |
|           | 1,000 lb.  | Percent  | 1,000 lb.   | Percent  | 1,000 lb.   | Percent | 1,000 lb.  | Percent |
| 1928-32   |            |          |             |          |             |         |            |         |
| 5-yr. av. | 84,452     | -        | 7,200       |          | 4,671       |         | 39,352     |         |
| 1932      | 61,945     | -19.2    | 4,918       | -22.9    | 3,354       | -19.6   | 36,412     | - 7.9   |
| 1933      | 61,361     | - 0.9    | 5,042       | ✓ 2.5    | 3,120       | - 7.0   | 36,325     | - 0.2   |
| 1934      | 62,760     | ✓ 2.3    | 5,080       | ✓ 0.8    | 2,970       | - 4.8   | 37,165     | ✓ 2.3   |
| 1935      | 1/ 60,630  | - 3.4 1/ | 5,562       | ✓ 9.5 1/ | 4,632       | ✓56.0   | 36,077     | - 2.9   |
| 1st 7 mo. |            |          |             |          |             |         |            |         |
| 1935      | 1/ 35,483  | - 5.3 1/ | 3,169       | ✓ 7.9 1/ | 2,510       | ✓15.0   | 21,328     | - 5.1   |
| 1936      | 1/ 34,330  | - 3.2 1/ | 3,647       | ✓15.1 1/ | 3,167       | ✓26.2   | 22,524     | ✓ 5.6   |

Compiled from reports of the Bureau of Internal Revenue.

1/ Preliminary.





Exports of unmanufactured tobacco from the United States, by types,  
annual 1925-26 to 1935-36, averages 1925-26 to 1929-30  
and 1930-31 to 1934-35 1/

| Type                                       | Marketing year <u>2/</u> |          |          |          |             |          |          |                |
|--|--------------------------|----------|----------|----------|-------------|----------|----------|----------------|
|  | Average:                 | Average: | :        | :        | :           | :        | :        | :              |
|  | 1925-26:                 | 1930-31: | :        | :        | :           | :        | :        | :              |
|  | to :                     | to :     | 1930-31: | 1931-32: | 1932-33:    | 1933-34: | 1934-35: | 1935-36        |
|  | 1929-30:                 | 1934-35: | :        | :        | :           | :        | :        | :              |
|  | Million                  | Million  | Million  | Million  | Million     | Million  | Million  | Million        |
|  | pounds                   | pounds   | pounds   | pounds   | pounds      | pounds   | pounds   | pounds         |
| Flue-cured                                 | 357.2                    | 312.5    | 432.7    | 285.5    | 269.7       | 330.3    | 244.5    | 322.8          |
| Virginia fire-cured                        | 20.4                     | 11.7     | 11.8     | 13.3     | 11.4        | 12.0     | 10.3     | <u>3/</u> 8.9  |
| Kentucky and<br>Tennessee fire-cured       | 100.9                    | 70.1     | 74.1     | 82.5     | 70.8        | 63.0     | 60.3     | <u>3/</u> 51.4 |
| Burley                                     | 9.4                      | 11.2     | 8.7      | 11.0     | 10.4        | 13.9     | 12.0     | <u>3/</u> 8.4  |
| Maryland <u>4/</u>                         | 14.0                     | 8.7      | 9.7      | 7.5      | 10.2        | 9.2      | 7.1      | 4.7            |
| One Sucker                                 | <u>5/</u> 3.2            | 1.2      | 1.8      | 1.0      | 1.0         | 1.0      | 1.1      | <u>3/</u> .8   |
| Green River                                | <u>5/</u> 9.0            | 3.6      | 5.4      | 4.3      | 2.4         | 2.4      | 3.4      | <u>3/</u> 3.6  |
| Cigar leaf                                 | 2.1                      | 1.7      | 3.7      | .8       | 1.3         | 1.5      | 1.2      | <u>3/</u> .7   |
| Black fat, water baler,<br>and dark Africa | <u>5/</u> 4.6            | 8.9      | 7.6      | 10.4     | 8.4         | 8.3      | 10.0     | <u>3/</u> 9.2  |
| Perique                                    | <u>5/</u> .2             | .1       | .1       | .1       | <u>7/</u> - | .1       | .1       | <u>3/</u> .1   |
| Stems, trimmings,<br>and scraps            | 8.9                      | 20.5     | 26.1     | 20.9     | 20.9        | 18.6     | 16.2     | <u>3/</u> 15.8 |

Compiled from Monthly Summary of Foreign Commerce of the United States and official records of the Bureau of Foreign and Domestic Commerce.

1/ Export weight.

2/ Flue-cured, July-June; Maryland, beginning January 1 of the year following production; all other types, October-September.

3/ Exports for 11 months, October-August, 1935-36.

4/ Includes Eastern Ohio, Type 71.

5/ 3-year average.

6/ One year only.

7/ Less than 50,000 pounds.

Flue-cured tobacco: Acreage, production, stocks, supply, disappearance, exports, ratio of supply to disappearance, and price; average 1928-32, annual 1932-36

| Year      | Acreage harvested | Production     | Stocks July 1, farm sales weight | Total supply July 1 | Disappearance year beginning July 1 | Exports year beginning July 1 | Ratio of total supply to disappearance | Season average farm price per pound |
|-----------|-------------------|----------------|----------------------------------|---------------------|-------------------------------------|-------------------------------|--|-------------------------------------|
| 1928-32   | 1,000 acres       | Million pounds | Million pounds                   | Million pounds      | Million pounds                      | Million pounds                | Ratio                                  | Cents                               |
| 5-yr. av. | 989.4             | 679.5          | 742.3                            | 1421.8              | 675.9                               | 426.2                         | 2.1                                    | 13.5                                |
| 1932      | 617.5             | 373.7          | 867.0                            | 1240.7              | 564.9                               | 309.6                         | 2.2                                    | 11.6                                |
| 1933      | 920.6             | 733.4          | 675.8                            | 1409.2              | 646.2                               | 389.5                         | 2.2                                    | 15.3                                |
| 1934      | 684.2             | 556.8          | 763.0                            | 1319.8              | 567.2                               | 280.6                         | 2.3                                    | 27.3                                |
| 1935      | 874.0             | 811.2          | 752.6                            | 1563.8              | 2/ 692.5                            | 375.0                         | 2.3                                    | 20.0                                |
| 1936      | 2/ 876.5          | 2/ 686.4       | 2/ 871.3                         | 2/ 1557.7           |                                     |                               |  |                                     |

1/ Conversion to farm sales weight subject to revision.

2/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.

Burley tobacco: Acreage, production, stocks, supply, disappearance, exports, ratio of supply to disappearance, and price; average 1928-32, annual 1932-36

| Year      | Acreage :<br>harvested : | Production :      | Stocks :<br>Oct. 1,<br>farm :<br>sales :<br>weight : | Total :<br>supply :<br>Oct. 1 : | Disap-<br>pearance, :<br>year :<br>beginning :<br>Oct. 1 : | Exports, :<br>year :<br>beginning :<br>Oct. 1, :<br>farm sales :<br>weight 1/ : | Ratio of :<br>total :<br>supply :<br>to :<br>disap- :<br>pearance : | Season :<br>average :<br>farm :<br>price :<br>per :<br>pound : |
|-----------|--------------------------|-------------------|--|---------------------------------|--|---|---|--|
|           | 1,000<br>acres           | Million<br>pounds | Million<br>pounds                                    | Million<br>pounds               | Million<br>pounds  | Million<br>pounds   | Ratio   | Cents  |
| 1928-32   |                          |                   |  |                                 |  |   |   |  |
| 5-yr. av. | 426.6                    | 336.8             | 487.7  | 824.5                           | 275.4  | 9.3   | 3.0   | 17.8   |
| 1932      | 410.2                    | 303.7             | 682.6  | 986.3                           | 266.0  | 11.9  | 3.7   | 12.5   |
| 1933      | 501.5                    | 377.5             | 720.3  | 1097.8                          | 277.5  | 16.0  | 4.0   | 10.5   |
| 1934      | 303.5                    | 2/ 234.2          | 920.3  | 1054.5                          | 284.6  | 13.8  | 3.7   | 16.9   |
| 1935      | 279.9                    | 221.6             | 759.9  | 991.5                           | 3/ 309.3   | 3/ 9.9  | 3.2   | 19.1   |
| 1936      | 4/ 312.3                 | 4/ 216.9          | 3/ 681.6   | 3/ 898.5                        |  |   |   |  |

1/ Conversion to farm sales weight subject to revision.

2/ Quantity marketed.

3/ Estimated.

4/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.

Maryland tobacco: Acreage, production, stocks, supply, disappearance, exports, ratio of supply to disappearance, and price; average 1928-32, annual 1932-36

| Year      | Acreage :<br>harvested | Production<br>: million<br>pounds | Stocks :<br>Jan. 1, :<br>million<br>pounds | Total :<br>supply :<br>Jan. 1 :<br>million<br>pounds | Disap- :<br>pearance, :<br>year, be- :<br>ginning :<br>million<br>pounds | Ratio :<br>of :<br>total :<br>supply :<br>to dis- :<br>appear- :<br>ance : | Season :<br>: average :<br>farm :<br>price :<br>per :<br>pound : |
|-----------|------------------------|-----------------------------------|--|--|--|--|--|
| 1928-32   |                        |                                   |  |  |  |  |  |
| 5-yr. av. | 34.9                   | 24.3                              | 21.7                                       | 46.0   | 20.7   | 2.2  | 22.7   |
| 1932      | 37.0                   | 23.7                              | 32.3                                       | 61.0   | 22.1   | 2.8  | 16.8   |
| 1933      | 37.0                   | 22.2                              | 38.9                                       | 61.1   | 25.1   | 2.4  | 17.8   |
| 1934      | 36.4                   | 26.2                              | 36.0                                       | 62.2   | 23.6   | 2.6  | 17.5   |
| 1935      | 36.0                   | 26.6                              | 38.6                                       | 65.4   |  |  | 18.5   |
| 1936      | 3/ 36.0                | 3/ 27.9                           |  |  | 2/ 7.1   |  |  |

1/ Stocks as of Jan. 1, of year following production, disappearance beginning Jan. 1 of year following production, and exports beginning Jan. 1, of year following production. Conversion of exports to farm sales weight subject to revision.

2/ Estimated.

3/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.



Fire-cured tobacco: Acreage, production, stocks, supply, disappearance, exports, ratio of supply to disappearance, and price; average 1928-32, annual 1932-36

| Year              | Acreage harvested | Production     | Stocks Oct. 1, farm sales weight | Total supply Oct. 1 | Disappearance year | Exports, year  | Ratio of total supply to disappearance | Season average farm price per pound |
|-------------------|-------------------|----------------|----------------------------------|---------------------|--------------------|----------------|--|-------------------------------------|
|                   | 1,000 acres       | Million pounds | Million pounds                   | Million pounds      | Million pounds     | Million pounds | Ratio                                  | Cents                               |
| 1928-32 5-yr. av. | 207.5             | 160.5          | 173.3                            | 333.8               | 155.8              | 109.8          | 2.1                                    | 9.5                                 |
| 1932              | 161.3             | 124.2          | 208.1                            | 332.3               | 123.6              | 93.2           | 2.7                                    | 6.2                                 |
| 1933              | 168.3             | 128.4          | 208.7                            | 337.1               | 137.1              | 85.4           | 2.5                                    | 9.1                                 |
| 1934              | 152.0             | 2/ 126.4       | 200.0                            | 326.4               | 102.5              | 80.6           | 3.2                                    | 10.8                                |
| 1935              | 142.6             | 118.2          | 223.9                            | 342.1               | 3/ 136.5           | 72.4           | 2.5                                    | 8.8                                 |
| 1936              | 4/ 135.5          | 4/ 99.2        | 3/ 205.6                         | 3/ 304.8            | ---                | ---            | ---                                    | ---                                 |

1/ Includes quantities of fire-cured tobacco exported as black fat and dark African. Conversion to farm sales weight subject to revision.

2/ Quantity marketed.

3/ Estimated.

4/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.

Fire-cured tobacco: Acreage, production, stocks, supply, disappearance, and price, by types; average 1928-32, annual 1932-36

| Year  | Acreage<br>harvested | Production        | Stocks<br>Oct. 1<br>farm sales<br>weight | Total<br>supply<br>Oct. 1 | Disappearance,<br>year<br>beginning<br>Oct. 1 | Season<br>average<br>farm price<br>per pound |
|---|----------------------|-------------------|--|---------------------------|---|--|
|   | 1,000<br>acres       | Million<br>pounds | Million<br>pounds                        | Million<br>pounds         | Million<br>pounds                             | Cents  |
| <u>Virginia fire-cured, Type 21</u>               |                      |                   |  |                           |   |  |
| 1928-32   |                      |                   |  |                           |   |  |
| 5-yr. av.   | 31.4                 | 21.9              | 40.1                                     | 62.0                      | 27.2  | 9.7  |
| 1932  | 20.8                 | 13.3              | 38.3                                     | 51.6                      | 19.7  | 8.2  |
| 1933  | 32.8                 | 24.9              | 31.9                                     | 56.8                      | 23.9  | 6.9  |
| 1934  | 22.5                 | <u>1/</u> 17.7    | 32.9                                     | 50.6                      | 19.8  | 12.2   |
| 1935  | 23.5                 | 20.4              | 30.8                                     | 51.2                      | <u>2/</u> 21.5                                | 10.2   |
| 1936  | <u>3/</u> 23.5       | <u>3/</u> 17.9    | <u>2/</u> 29.7                           | <u>2/</u> 47.6            | ---   | ---  |
| <u>Kentucky and Tennessee fire-cured, Type 22</u> |                      |                   |  |                           |   |  |
| 1928-32   |                      |                   |  |                           |   |  |
| 5-yr. av.   | 117.7                | 93.3              | <u>4/</u> 102.2                          | 195.5                     | 82.4  | 10.5   |
| 1932  | 99.0                 | 78.6              | 124.3                                    | 202.9                     | 58.7  | 6.6  |
| 1933  | 98.0                 | 78.5              | 144.2                                    | 222.7                     | 92.5  | 10.5   |
| 1934  | 88.5                 | <u>1/</u> 75.4    | 130.2                                    | 205.6                     | 57.0  | 11.3   |
| 1935  | 83.0                 | 68.9              | 148.6                                    | 217.5                     | <u>2/</u> 82.0                                | 9.0  |
| 1936  | <u>3/</u> 78.0       | <u>3/</u> 56.6    | <u>2/</u> 135.5                          | <u>2/</u> 192.1           | ---   | ---  |
| <u>Kentucky and Tennessee fire-cured, Type 23</u> |                      |                   |  |                           |   |  |
| 1928-32   |                      |                   |  |                           |   |  |
| 5-yr. av.   | 49.2                 | 38.1              | <u>4/</u> 27.9                           | 66.0                      | 38.8  | 7.4  |
| 1932  | 36.5                 | 28.4              | 40.7                                     | 69.1                      | 41.0  | 4.6  |
| 1933  | 33.5                 | 22.0              | 28.1                                     | 50.1                      | 18.0  | 6.8  |
| 1934  | 36.5                 | <u>1/</u> 29.5    | 32.1                                     | 61.6                      | 21.1  | 8.9  |
| 1935  | 32.5                 | 25.8              | 40.5                                     | 66.3                      | <u>2/</u> 29.4                                | 7.4  |
| 1936  | <u>3/</u> 31.0       | <u>3/</u> 22.6    | <u>2/</u> 36.9                           | <u>2/</u> 59.5            | ---   | ---  |
| <u>Henderson fire-cured, Type 24</u>              |                      |                   |  |                           |   |  |
| 1928-32   |                      |                   |  |                           |   |  |
| 5-yr. av.   | 9.2                  | 7.2               | 3.1                                      | 10.3                      | 7.4   | 7.5  |
| 1932  | 5.0                  | 3.9               | 4.8                                      | 8.7                       | 4.2   | 3.4  |
| 1933  | 4.0                  | 3.0               | 4.5                                      | 7.5                       | 2.7   | 6.5  |
| 1934  | 4.5                  | <u>1/</u> 3.8     | 4.8                                      | 8.6                       | 4.6   | 8.0  |
| 1935  | 3.6                  | 3.0               | 4.0                                      | 7.0                       | <u>2/</u> 3.5                                 | 6.4  |
| 1936  | <u>3/</u> 3.0        | <u>3/</u> 2.2     | <u>2/</u> 3.5                            | <u>2/</u> 5.7             | ---   | ---  |

1/ Quantity marketed.

2/ Estimated.

3/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.

4/ 1929-32 4-year average.

Dark air-cured tobacco: Acreage, production, stocks, supply, disappearance, exports, ratio of supply to disappearance, and price; average 1928-32, annual 1932-36

| Year      | Acreage<br>harvested | Produc-<br>tion   | Stocks<br>Oct. 1,<br>farm<br>sales<br>weight | Total<br>supply<br>Oct. 1 | Disap-<br>pearance<br>year<br>beginning<br>Oct. 1 | Exports<br>year<br>beginning<br>Oct. 1 | Ratio of<br>total<br>supply<br>to<br>disap-<br>pearance | Season<br>average<br>farm<br>price<br>per<br>pound |
|-----------|----------------------|-------------------|--|---------------------------|---|--|---|--|
|           | 1,000<br>acres       | Million<br>pounds | Million<br>pounds                            | Million<br>pounds         | Million<br>pounds                                 | Million<br>pounds                      | Ratio   | Cents  |
| 1928-32   |                      |                   |  |                           |   |  |   |  |
| 5-yr. av. | 67.9                 | 54.1              | 71.5   | 125.6                     | 54.8  | 15.9                                   | 2.3   | 7.6  |
| 1932      | 45.5                 | 36.5              | 82.5   | 119.0                     | 40.2  | 10.7                                   | 3.0   | 4.1  |
| 1933      | 40.7                 | 31.0              | 73.8   | 109.8                     | 36.5  | 10.6                                   | 3.0   | 7.3  |
| 1934      | 45.6                 | 2/ 38.4           | 73.3   | 111.7                     | 42.0  | 8.5                                    | 2.7   | 7.6  |
| 1935      | 36.7                 | 31.0              | 69.7   | 100.7                     | 3/ 39.0   | 3/ 13.9                                | 2.6   | 8.0  |
| 1936      | 4/ 36.7              | 4/ 25.7           | 3/ 61.7                                      | 3/ 87.4                   | ---   | ---                                    | ---   | ---  |

1/ Includes quantities of dark air-cured tobacco exported as black fat and dark African.

Conversion to farm sales weight subject to revision.

2/ Quantity marketed.

3/ Estimated.

4/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.





Cigar tobacco, all types: Acreage, production, stocks, supply, disappearance, estimated consumption, and ratio of supply to estimated consumption; average 1928-32, annual 1932-36

| Year      | Acreage : harvested | Production : Million pounds | Stocks : Oct. 1, farm sales weight 1/ | Total : supply Oct. 1 2/ | Disappearance : year beginning Oct. 1 2/ | Estimated : consumption, year beginning Oct. 1 2/ | Ratio of supply to estimated consumption |
|-----------|---------------------|-----------------------------|---------------------------------------|--------------------------|--|---|--|
|           | 1,000 acres         | Million pounds              | Million pounds                        | Million pounds           | Million pounds                           | Million pounds                                    | Ratio                                    |
| 1928-32   |                     |                             |                                       |                          |  |   |  |
| 5-yr. av. | 144.2               | 170.3                       | 354.8                                 | 525.1                    | 153.0                                    | 156.2   | 3.4                                      |
| 1932      | 131.7               | 150.1                       | 427.2                                 | 577.3                    | 164.0                                    | 124.3   | 4.6                                      |
| 1933      | 70.0                | 78.4                        | 413.3                                 | 491.7                    | 98.3                                     | 123.6   | 4.0                                      |
| 1934      | 56.8                | 73.2                        | 393.4                                 | 466.6                    | 103.8                                    | 127.1   | 3.7                                      |
| 1935      | 67.9                | 88.0                        | 362.8                                 | 450.8                    | 4/ 121.5                                 | 133.4   | 3.4                                      |
| 1936      | 5/ 74.8             | 5/ 96.0                     | 4/ 329.3                              | 4/ 425.3                 | ----                                     | ----  | ---                                      |

1/ Does not include stocks held on farms. For types 45, 61, and 62, stocks as of July 1.

2/ For types 45, 61, and 62, total supply and disappearance for year beginning July 1.

3/ Subject to revision. Consumption, which includes exports plus estimates of quantities used in products manufactured, differs from calculated disappearance because the latter does not reflect changes in farm stocks.

4/ Estimated.

5/ Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.

Cigar tobacco: Acreage, production, stocks, supply, disappearance,  
and price, by types; average 1928-32, annual 1932-36

| Year   | :<br>Acreage<br>harvested | :<br>Produc-<br>tion | :<br>Stocks<br>Oct. 1,<br>farm sales<br>weight 1/ | :<br>Total<br>supply<br>Oct. 1 | :<br>Disappear-<br>ance, year<br>beginning<br>Oct. 1 | :<br>Season<br>average<br>farm price<br>per pound |
|--|---------------------------|----------------------|---|--------------------------------|--|---|
|  | 1,000<br>acres            | Million<br>pounds    | Million<br>pounds                                 | Million<br>pounds              | Million<br>pounds                                    | Cents   |
| <u>Pennsylvania Seedleaf, Type 41</u>            |                           |                      |   |                                |  |   |
| 1928-32  |                           |                      |   |                                |  |   |
| 5-yr. av.  | 40.1                      | 48.5                 | 98.9  | 147.4                          | 45.4   | 8.9   |
| 1932   | 41.7                      | 45.9                 | 122.9   | 168.8                          | 56.3   | 4.7   |
| 1933   | 22.0                      | 21.4                 | 112.5   | 133.9                          | 29.9   | 5.0   |
| 1934   | 17.7                      | 21.2                 | 104.0   | 125.2                          | 25.3   | 9.3   |
| 1935   | 20.5                      | 28.2                 | 99.9  | 128.1                          | 2/ 26.5  | 12.0  |
| 1936   | 3/ 24.2                   | 3/ 33.9              | 2/ 101.6  | 2/ 135.5                       | ----   | ---   |
| <u>Miami Valley, Types 42-44</u>                 |                           |                      |   |                                |  |   |
| 1928-32  |                           |                      |   |                                |  |   |
| 5-yr. av.  | 29.3                      | 25.6                 | 54.4  | 80.0                           | 24.1   | 10.2  |
| 1932   | 30.3                      | 24.2                 | 66.0  | 90.2                           | 27.8   | 4.0   |
| 1933   | 14.1                      | 12.7                 | 62.4  | 75.1                           | 11.7   | 6.0   |
| 1934   | 13.6                      | 16.3                 | 63.4  | 79.7                           | 13.9   | 8.6   |
| 1935   | 16.2                      | 17.4                 | 65.8  | 83.2                           | 2/ 22.9  | 7.5   |
| 1936   | 3/ 13.8                   | 3/ 12.4              | 2/ 60.3   | 2/ 72.7                        | ----   | ---   |
| <u>Georgia and Florida Sun-grown, Type 45</u> 4/ |                           |                      |   |                                |  |   |
| 1928-32  |                           |                      |   |                                |  |   |
| 5-yr. av.  | 1.2                       | 1.2                  | 5/ 2.2  | 3.4                            | .8   | 17.0  |
| 1932   | .3                        | .2                   | 3.2   | 3.4                            | .7   | 10.0  |
| 1933   | .1                        | .1                   | 2.7   | 2.8                            | 1.0  | 11.0  |
| 1934   | .5                        | .6                   | 1.8   | 2.4                            | 1.2  | 12.0  |
| 1935   | 1.1                       | 1.2                  | 1.2   | 2.4                            | 3/ .2  | 13.5  |
| 1936   | 3/ .8                     | 3/ .9                | 3/ 2.2  | 3/ 3.1                         | ----   | ---   |
| <u>Connecticut Valley Broadleaf, Type 51</u>     |                           |                      |   |                                |  |   |
| 1928-32  |                           |                      |   |                                |  |   |
| 5-yr. av.  | 11.2                      | 16.5                 | 33.9  | 50.4                           | 15.2   | 19.9  |
| 1932   | 9.7                       | 15.3                 | 40.3  | 55.6                           | 14.6   | 12.0  |
| 1933   | 7.4                       | 11.1                 | 41.0  | 52.1                           | 12.3   | 13.0  |
| 1934   | 5.3                       | 9.0                  | 39.8  | 48.8                           | 13.3   | 17.0  |
| 1935   | 6.3                       | 10.7                 | 35.5  | 46.2                           | 2/ 14.1  | 17.6  |
| 1936   | 3/ 7.7                    | 3/ 12.8              | 2/ 32.1   | 2/ 44.9                        | ----   | ---   |

Continued --

Cigar tobacco: Acreage, production, stocks, supply, disappearance, and price, by types; average 1928-32, annual 1932-36 (cont'd)

| Year  | :<br>Acreage<br>harvested | :<br>Produc-<br>tion | :<br>Stocks<br>Oct. 1,<br>farm sales<br>weight 1/ | :<br>Total<br>supply<br>Oct. 1 | :<br>Disappear-<br>ance, year<br>beginning<br>Oct. 1 | :<br>Season<br>average<br>farm price<br>per pound |
|---|---------------------------|----------------------|---|--------------------------------|--|---|
|   | 1,000<br>acres            | Million<br>pounds    | Million<br>pounds                                 | Million<br>pounds              | Million<br>pounds                                    | Cents   |
| <u>Connecticut Valley Havana Seed, Type 52</u>        |                           |                      |   |                                |  |   |
| 1928-32   |                           |                      |   |                                |  |   |
| 5-yr. av.   | 12.0                      | 17.5                 | 37.9  | 55.4                           | 18.0   | 19.7  |
| 1932  | 11.2                      | 17.5                 | 40.9  | 58.4                           | 19.8   | 8.5   |
| 1933  | 6.7                       | 10.0                 | 38.6  | 48.6                           | 10.8   | 9.7   |
| 1934  | 3.6                       | 5.9                  | 37.8  | 43.7                           | 12.9   | 15.6  |
| 1935  | 4.1                       | 6.7                  | 30.8  | 37.5                           | 2/ 13.8  | 16.9  |
| 1936  | 3/ 5.0                    | 3/ 8.0               | 2/ 23.7   | 2/ 31.7                        | ----   | ---   |
| <u>New York and Pennsylvania Havana Seed, Type 53</u> |                           |                      |   |                                |  |   |
| 1928-32   |                           |                      |   |                                |  |   |
| 5-yr. av.   | 1.7                       | 1.9                  | 3.1   | 5.0                            | 1.6  | 11.9  |
| 1932  | 2.4                       | 2.5                  | 4.4   | 6.9                            | 2.6  | 3.6   |
| 1933  | .8                        | 1.0                  | 4.3   | 5.3                            | 2.2  | 4.2   |
| 1934  | .3                        | .4                   | 3.1   | 3.5                            | 1.5  | 8.2   |
| 1935  | .5                        | .7                   | 2.0   | 2.7                            | 2/ 1.0   | 11.2  |
| 1936  | 3/ .9                     | 3/ 1.2               | 2/ 1.7  | 2/ 2.9                         | ---  | ---   |
| <u>Southern Wisconsin, Type 54</u>                    |                           |                      |   |                                |  |   |
| 1928-32   |                           |                      |   |                                |  |   |
| 5-yr. av.   | 22.7                      | 29.5                 | 5/ 65.3   | 94.8                           | 23.4   | 9.4   |
| 1932  | 19.2                      | 25.0                 | 80.8  | 105.8                          | 25.6   | 4.5   |
| 1933  | 8.4                       | 10.5                 | 80.2  | 90.7                           | 9.4  | 5.5   |
| 1934  | 5.2                       | 7.2                  | 81.3  | 88.5                           | 14.9   | 6.0   |
| 1935  | 6.0                       | 8.4                  | 73.6  | 82.0                           | 2/ 17.8  | 7.3   |
| 1936  | 3/ 7.2                    | 3/ 9.6               | 2/ 64.2   | 2/ 73.8                        | ----   | ---   |
| <u>Northern Wisconsin, Type 55</u>                    |                           |                      |   |                                |  |   |
| 1928-32   |                           |                      |   |                                |  |   |
| 5-yr. av.   | 15.9                      | 19.2                 | 5/ 44.8   | 64.0                           | 15.3   | 10.5  |
| 1932  | 10.0                      | 12.5                 | 52.2  | 64.7                           | 9.6  | 3.8   |
| 1933  | 4.5                       | 5.5                  | 55.1  | 60.6                           | 12.9   | 4.8   |
| 1934  | 3.6                       | 5.3                  | 47.7  | 53.0                           | 11.5   | 8.4   |
| 1935  | 5.2                       | 6.9                  | 41.5  | 48.4                           | 2/ 15.8  | 7.2   |
| 1936  | 3/ 6.2                    | 3/ 8.0               | 2/ 32.6   | 2/ 40.6                        | ----   | ---   |

Continued -

Cigar tobacco: Acreage, production, stocks, supply, disappearance,  
and price, by types; average 1928-32, annual 1932-36 (cont'd)

| Year  | :<br>Acreage<br>harvested<br>:<br>1,000<br>acres | :<br>Produc-<br>tion<br>:<br>Million<br>pounds | :<br>Stocks<br>Oct.1,<br>farm sales<br>weight <sup>1/</sup><br>:<br>Million<br>pounds | :<br>Total<br>supply<br>:<br>Million<br>pounds | :<br>Disappear-<br>ance, year<br>beginning<br>:<br>Million<br>pounds | :<br>Season<br>average<br>farm price<br>per pound<br>:<br>Cents |
|---|--|--|---|--|--|---|
| <u>Connecticut Valley Shade-grown, Type 61 <sup>4/</sup></u>  |  |  |   |  |  |   |
| 1928-32   |  |  |   |  |  |   |
| 5-yr. av.   | 6.9  | 6.9  | 9.9   | 16.8   | 5.9  | 72.6  |
| 1932  | 4.5  | 4.6  | 12.3  | 16.9   | 5.0  | 59.0  |
| 1933  | 4.7  | 4.9  | 11.9  | 16.8   | 5.8  | 64.0  |
| 1934  | 5.0  | 5.5  | 11.0  | 16.5   | 7.0  | 80.0  |
| 1935  | 5.7  | 5.7  | 9.5   | 15.2   | <sup>3/</sup> 7.0  | 75.0  |
| 1936  | <sup>3/</sup> 6.4                                | <sup>3/</sup> 6.6                              | <sup>3/</sup> 8.2   | <sup>3/</sup> 14.8                             | ---  | ---   |
| <u>Georgia and Florida Shade-grown, Type 62 <sup>4/</sup></u> |  |  |   |  |  |   |
| 1928-32   |  |  |   |  |  |   |
| 5 yr. av.   | 3.2  | 3.5  | <sup>5/</sup> 4.4   | 7.9  | 3.3  | 47.0  |
| 1932  | 2.4  | 2.4  | 4.2   | 6.6  | 2.0  | 35.0  |
| 1933  | 1.3  | 1.2  | 4.6   | 5.8  | 2.3  | 32.0  |
| 1934  | 2.0  | 1.8  | 3.5   | 5.3  | 2.3  | 60.0  |
| 1935  | 2.3  | 2.1  | 3.0   | 5.1  | <sup>3/</sup> 2.4  | 65.0  |
| 1936  | <sup>3/</sup> 2.6                                | <sup>3/</sup> 2.6                              | <sup>3/</sup> 2.7   | <sup>3/</sup> 5.3                              | ---  | ---   |

<sup>1/</sup> Does not include stocks held on farms.<sup>2/</sup> Estimated.<sup>3/</sup> Preliminary: Acreage estimate as of July 1 and production estimate as of October 1, 1936.<sup>4/</sup> Stocks July 1, total supply July 1, and disappearance, year beginning July 1.<sup>5/</sup> 1929-32 4 year average.



# THE RICE OUTLOOK FOR 1937

## Summary

Southern rice growers are faced with the problem of finding a market for about 15 percent more rice during the 1936-37 season than was marketed during 1935-36 and California growers have 50 percent more rice on hand than a year ago. Domestic consumption may increase slightly as a result of lower rice prices, improved business conditions, and higher prices of competitive commodities, particularly potatoes. Takings by insular possessions may be somewhat larger but unless exports can be materially increased by lowering prices or the surplus disposed of in other ways, unusually heavy stocks will be carried over into the 1937-38 season. Prices of milled rice in domestic markets at the middle of October were about 75¢ per 100 lower than a year earlier but were still well above export bids, except for special lots. The large 1936 crop was the result of an increase of about 11 percent in acreage over the average of the past three years and unusually large yields. Foreign rice production from present indications will be somewhat larger than in 1935. While the larger foreign supplies may be about offset by an increased demand, there is little prospect for increased takings of United States rice by foreign countries.

## Rice Acreage Increased Sharply in 1936

The acreage of rice for harvest in the United States in 1936 was about 102,000 acres larger than during the previous year and about 11 percent above the average of the past three years but about 3 percent below the 5-year (1928-32) average. There was a gradual decline in the acreage planted to rice in the United States from 1930 to 1935. In 1936 the acreage was sharply increased, particularly in California where the acreage was about 20 percent over that of the previous year. In the Southern States about 10 percent greater acreage was planted to rice in 1935.

## Rice: Acreage, U. S. Southern States and California, 1924-1936

| Year | Acres harvested |             |           |                   |              |                            |
|------|-----------------|-------------|-----------|-------------------|--------------|----------------------------|
|      | :               | :           | :         | :                 | :            | :                          |
|      | : Arkansas      | : Louisiana | : Texas   | : Southern States | : California | : United States (4 States) |
|      | Thousands       | Thousands   | Thousands | Thousands         | Thousands    | Thousands                  |
| 1924 | 166             | 430         | 151       | 747               | 90           | 837                        |
| 1925 | 176             | 414         | 156       | 746               | 103          | 849                        |
| 1926 | 196             | 492         | 169       | 857               | 149          | 1,006                      |
| 1927 | 179             | 520         | 165       | 864               | 160          | 1,024                      |
| 1928 | 173             | 495         | 162       | 830               | 132          | 962                        |
| 1929 | 156             | 465         | 144       | 765               | 95           | 860                        |
| 1930 | 173             | 491         | 192       | 856               | 110          | 966                        |
| 1931 | 177             | 458         | 205       | 840               | 125          | 965                        |
| 1932 | 163             | 415         | 186       | 764               | 120          | 884                        |
| 1933 | 147             | 395         | 148       | 690               | 108          | 798                        |
| 1934 | 141             | 415         | 148       | 704               | 120          | 824                        |
| 1935 | 138             | 386         | 170       | 694               | 99           | 793                        |
| 1936 | 146             | 421         | 207       | 774               | 121          | 895                        |

Supplies for 1936-37 are Large.

Supplies of southern rice for the 1936-37 season promise to be the largest in 5 years and will probably exceed those of last season by more than 1,500,000 barrels. Stocks of old rough rice August 1 were only moderate but when the 1936 crop is added and an allowance is made for seed, feed, and local use by huller mill the prospective commercial supply totals about 9,552,000 barrels compared with 8,162,000 barrels accounted for last season.

Supplies of rice in California are about 50 percent larger than last season, reflecting unusually heavy stocks carried over from the 1935 season and the largest production on record with the exception of 1919. Stocks of old rice in mills and in country warehouses in California at the first of October totaled 484,179 bags. A crop of 4,083,750 bags was indicated by October 1 conditions, giving a total supply of 4,567,929 bags compared with 3,039,018 bags at the beginning of the 1935-36 season.

Rice: Seasonal Supplies, including carry-over and crop

| Southern States, August 1, 1932-36 |                      |          |          |             |                       |            |            |
|------------------------------------|----------------------|----------|----------|-------------|-----------------------|------------|------------|
| Year                               | Stocks of Rough Rice |          |          | Milled rice |                       | Total      |            |
|                                    | On Farms             | At       | Total    | stored      | rough and             | Crop       | supply     |
|                                    | country              | mills    |          | at mills    | milled <sup>a/</sup>  |            | in terms   |
|                                    | warehouses:          |          |          |             |                       |            | of rough   |
|                                    | Barrels              | Barrels  | Barrels  | Pockets     | Pockets               | Barrels    | Barrels    |
|                                    | 162 lbs.             | 162 lbs. | 162 lbs. | 100 lbs.    | 100 lbs.              | 162 lbs.   | 162 lbs.   |
| 1932                               | 300,681              | 336,777  | 637,468  | 975,930     | 1,613,398             | 9,394,140  | 11,007,538 |
| 1933                               | 141,750              | 305,809  | 447,559  | 645,539     | 1,093,098             | 8,538,587  | 9,631,685  |
| 1934                               | 201,700              | 267,389  | 469,089  | 999,298     | 1,468,387             | 8,553,032  | 10,021,419 |
| 1935                               | 39,583               | 51,384   | 90,967   | 331,816     | 422,783               | 8,722,198  | 9,144,981  |
| 1936                               | 143,766              | 71,369   | 215,135  | 271,010     | 486,145 <sup>b/</sup> | 10,109,444 | 10,595,589 |

| California, October 1, 1933-36 |            |          |          |          |                       |           |           |
|--------------------------------|------------|----------|----------|----------|-----------------------|-----------|-----------|
|                                | Bags       | Bags     | Bags     | Bags     | Bags                  | Bags      | Bags      |
|                                | 100 lbs.   | 100 lbs. | 100 lbs. | 100 lbs. | 100 lbs.              | 100 lbs.  | 100 lbs.  |
| 1933                           | 163,136    | 36,864   | 200,000  | 73,374   | 347,784               | 3,110,400 | 3,457,148 |
| 1934                           | negligible | 30,082   | 30,082   | 228,169  | 486,420               | 3,715,200 | 4,201,620 |
| 1935                           | 4,450      | 5,268    | 9,718    | 94,851   | 199,420               | 3,029,400 | 3,228,820 |
| 1936                           | 415,033    | 69,146   | 484,179  | 43,963   | 572,105 <sup>b/</sup> | 4,083,750 | 4,655,855 |

<sup>a/</sup> Milled rice converted to rough on the basis that one pocket equals one barrel for southern rice and one bag milled equals 200 pounds rough for California.

<sup>b/</sup> Preliminary October 1 estimate.

## Demand Situation

Domestic consumption of rice and shipments to insular possessions may be slightly larger during 1936-37 than last season as a result of continued industrial improvement, somewhat lower rice prices, and relatively high prices of some competing products, particularly potatoes, but exports are likely to continue relatively small.

Domestic disappearance of milled rice in 1935-36 totaled approximately 662,024,000 pounds. Shipments to insular possessions amounted to 281,625,000 pounds. Export movement was relatively heavy early in the season when drawback allowance enabled United States exporters to compete with foreign offerings in Cuba and European markets but it dropped to small proportions after the drawback was removed. Exports from all ports for the season were the smallest in several years and totaled 75,172,000 pounds.

Taking carry-over stocks into account, supplies of rice for the 1936-37 season in the southern belt are about 1,500,000 barrels (162 lbs.) above the 1935-36 utilization and California supplies about 1,250,000 bags (100 lbs.) larger than last season. Since it appears improbable that domestic utilization, shipments to insular possessions or exports will increase sufficiently to absorb the surplus, carry-over stocks at the close of the 1936-37 season are likely to be unusually heavy.

| Milled Rice: Southern States, supply and distribution, 1930-36 |            |             |            |           |               |            |            |
|--|------------|-------------|------------|-----------|---------------|------------|------------|
| Crop<br>year   | :          | :           | :          | :         | Distribution  |            |            |
|  | Mill       | :           | Total      | :         | Shipments     | Disappear- | Mill       |
|  | stocks     | Production: | supply     | :         | Exports       | to insular | ance with- |
|  | :August 1: | :           | :          | :         | :possessions: | in U. S.   | :July 31   |
|  | Pockets    | Pockets     | Pockets    | Pockets   | Pockets       | Pockets    | Pockets    |
|  | 100 lbs.   | 100 lbs.    | 100 lbs.   | 100 lbs.  | 100 lbs.      | 100 lbs.   | 100 lbs.   |
| 1930-31  | 315,126    | 10,360,802  | 10,675,928 | 2,123,640 | 1,666,984     | 6,214,090  | 671,214    |
| 1931-32  | 671,214    | 9,272,441   | 10,643,655 | 2,166,598 | 1,603,890     | 5,897,237  | 975,930    |
| 1932-33  | 975,930    | 9,502,563   | 10,478,493 | 1,234,426 | 1,869,460     | 6,729,068  | 645,539    |
| 1933-34  | 645,539    | 8,031,052   | 8,726,591  | 842,213   | 1,568,510     | 5,316,560  | 999,298    |
| 1934-35  | 999,298    | 8,658,264   | 9,657,562  | 1,143,391 | 1,779,490     | 6,402,865  | 331,816    |
| 1935-36  | 331,816    | 8,496,138   | 8,827,954  | 744,821   | 1,606,610     | 6,205,513  | 271,010    |

| Milled Rice: California, supply and distribution, 1933-36 |             |             |           |          |               |             |            |
|---|-------------|-------------|-----------|----------|---------------|-------------|------------|
| Crop<br>year  | :           | :           | :         | :        | Distribution  |             |            |
|   | Stocks      | Production: | Total     | :        | Shipments     | Disappear-  | Stocks     |
|   | :October 1: | :           | supply    | :        | Exports       | to Hawaii & | ance with- |
|   | :           | :           | :         | :        | :Puerto Rico: | in U. S.    | :September |
|   | Bags        | Bags        | Bags      | Bags     | Bags          | Bags        | Bags       |
|   | 100 lbs.    | 100 lbs.    | 100 lbs.  | 100 lbs. | 100 lbs.      | 100 lbs.    | 100 lbs.   |
| 1933-34   | 73,374      | 1,831,070   | 1,904,444 | 10,963   | 1,225,166     | 440,146     | 228,169    |
| 1934-35   | 228,169     | 1,728,059   | 1,956,228 | 29,754   | 1,262,810     | 663,664     | 94,851     |
| 1935-36   | 94,851      | 1,536,422   | 1,631,273 | 6,903    | 1,209,640     | 414,730     | 43,963     |



Under a local marketing agreement in California, growers are contributing 25 cents per 100 pounds on each sale of rough rice to establish a fund for use in subsidizing exports or making other disposition of supplies in excess of normal trade needs. Marketings of southern rough rice during the first 2 months of this season were nearly 40 percent larger than during the corresponding period of 1935-36. Shipments of milled rice into consuming channels, however, were only about 10 percent larger than last season despite somewhat lower prices for rice. At the middle of October, Extra Fancy Blue Rose was quoted at New Orleans at \$3.75 to \$3.85 compared with \$4.50 to \$4.65 per 100 a year earlier. California Japan was quoted at San Francisco October 15, 1936 at \$4.20 compared with \$4.55 per 100 a year ago.

Rice prices averaged considerably higher during the past 3 years than in the preceding 3 year period, largely as the result of smaller crops with total supplies only moderately above normal domestic utilization and shipments to insular possessions. Extra fancy grades of the principal varieties of southern rice at New Orleans averaged \$4.59 per 100 for the 1935-36 season, \$4.09 for 1934-35, and \$4.20 per 100 for 1933-34. During 1932-33 the New Orleans price averaged only \$2.57 and in 1931-32 \$3.51 per 100. During the 1935-36 season rice prices advanced moderately during the first 4 months, reaching a peak for most varieties in December. When processing taxes were invalidated the milled rice market dropped sharply with the lowest point reached in February when prices of the principal varieties at New Orleans averaged \$4.06 per 100 compared with \$5.20 per 100 for December. Some strengthening of the market occurred in April, May, and June with the advance in prices of other foods, but July prices were barely steady reflecting the favorable new crop prospects.

Rice: Average price per 100 pounds, extra fancy grades at New Orleans  
Crop season August September

|                | :         | :         | :         | :          | :         | :            |
|----------------|-----------|-----------|-----------|------------|-----------|--------------|
|                | : 1931-32 | : 1932-33 | : 1933-34 | : 1934 -35 | : 1935-36 | : 1936-37 1/ |
| Blue Rose      | \$2.79    | \$2.35    | \$3.91    | \$3.85     | \$4.39    | \$4.53       |
| Early Prolific | 2.54      | 2.16      | 3.69      | 3.68       | 4.17      | 4.33         |
| Lady Wright    | 3.44      | 2.40      | 4.00      | 2/ 4.28    | 4.42      | 4.44         |
| Edith          | 4.29      | 2.92      | 4.54      | 5.20       | 4.87      | 4.50         |
| Fortuna        | 4.47      | 3.02      | 4.82      | 5.43       | 5.08      | 4.55         |
| Average        | 3.51      | 2.57      | 4.20      | 4.09       | 4.59      | 4.47         |

Average price California, Extra Fancy Japan at San Francisco

|                  |      |      |      |      |      |      |
|------------------|------|------|------|------|------|------|
| California-Japan | 2.93 | 2.50 | 3.76 | 3.94 | 4.51 | 4.61 |
|------------------|------|------|------|------|------|------|

1/ August and September only

2/ Average January through July.



## Foreign Rice Situation

Available information indicates that foreign rice production is somewhat larger in 1936 than the previous year. Import requirements for some European countries are expected to be greater this coming season because of smaller grain harvests. This increased demand may be about sufficient to take care of increased surplus. During the spring of 1937, however, there may be slightly increased rice stocks and slightly lower prices for foreign rice, providing the crops harvested this winter in Southeastern Asia are of average size.

China, which for many years has been the largest importing country, has a larger 1936 rice crop. Imports will be even smaller for 1936-37 than for the 1935-36 crop year.

In Japan, the 1936 rice crop is officially estimated at approximately 9,322,000 metric tons compared with 8,402,000 for 1935 and 8,709,000 for the 5-year average 1930-34. With the usual rice imports from Chosen and Taiwan, the rice supply in Japan will be slightly above requirements for the 1936-37 crop year.

Java has a record rice crop. Instead of being a deficit area it will have an export surplus.

The total Indian rice crop is approximately 10 percent below last year's production. Burma, the surplus area of India, has a larger crop and will be able to supply the increased Indian requirements and still have about 1,000,000 metric tons available for export to foreign countries, compared with 1,437,000 tons exported the previous year. Siam's 1936 rice crop is reported about 5 percent smaller than the 1935 harvest. There was a slightly increased carry-over, so supplies for export will be about as large this season as last.

Indo-China's crop is approximately 10 percent above 1935. Last year, total exports amounted to 1,718,000 metric tons. This year, France with a smaller wheat crop is expected to increase its imports of rice from Indo-China.

The Italian rice crop is reported slightly larger than the 1935 harvest, but Italian exports may be smaller than last year because Italy has a poorer wheat harvest this season.

There is little prospect of increased imports of United States rice by European countries during 1936-37 because of trade barriers and competition from other exporting areas. United States exports have declined sharply in recent years and dropped from 320,000,000 pounds in 1928-29 to less than 76,000,000 pounds of milled rice in 1935-36. Shipments to Europe have shown the greatest falling off. During the 5-year period 1927-28 to 1931-32 exports to Europe averaged 150,000,000 pounds annually but for the 3 years 1933-34 to 1935-36 the average was only about 50,000,000 pounds. While European countries have reduced total takings somewhat they have increased the imports of rice from other countries including Brazil, Italy, and the southeastern Asiatic countries. Cuba has furnished the principal foreign outlet for American rice during the past 2 years with exports to that Island in 1935-36 totaling about 33,000,000 pounds, or nearly half of the total United States exports for that season. With East Indian rices quoted well below United States offerings at Havana and nearly 225,000,000 pounds of Siam rice in store in Cuba, takings of American rice will likely be small in 1936-37.



## THE OUTLOOK FOR FARM-FAMILY LIVING FOR 1937

### Summary

For the United States as a whole, the 1936 gross cash income from agriculture is continuing the upward trend begun in 1933, and, according to preliminary estimates, represents an increase of approximately 11 percent over 1935 income. This general increase in 1936 is expected in spite of the severe drought of the summer that destroyed crops and pastures over a considerable area. Probably much of the effect of this drought on income and resources will not be felt until 1937, and its influence on farm income will be chiefly regional. The outlook for the 1937 income from agriculture the country over is a continuation of the upward trend of 1933-36.

The improvement in income in the first half of 1936 reflected a larger volume of farm products marketed, together with the higher prices received for meat animals, dairy products, and fruits. The improvement in income during the second half of 1936 is reflecting chiefly the higher prices of nearly all groups of farm products, together with the considerably heavier marketings of meat animals. Payments by the Agricultural Adjustment Administration to farmers will be substantially smaller in 1936 than in 1935.

As usual, reports for 1936 are showing wide regional differences in percentage gains in agricultural income over the preceding year. The part of the country that benefited most in the first 8 months of this year, taking income from farm marketings and Government payments together, is the West North Central States, with a 21 percent gain over the same period last year. This increase was due in part to the higher price levels for grain and livestock, together with the greater volume of marketings of meat animals. There probably was some liquidation of livestock in consequence of the drought.

The region in which income from marketings and Government payments was no higher in this period is the South Central States, with a 2 percent decrease in the first 8 months of 1936 as compared with the same period last year. An increase in receipts from farm marketings in this region was offset by smaller Government payments.

In 1937, as in other years, members of many farm families will be supplementing farm income by earning away from home. Such earnings off the farm the United States over will run into millions of dollars. Considerable additional income which cannot be estimated in amount at present comes to the farm from such miscellaneous sources as real estate, investments, tourist trade, and the sale of handicrafts and prepared food.

Increases in net income from agricultural and nonagricultural sources, lower interest rates, and long-time financing plans for debts will tend together to increase the cash available for farm-family living in 1936,

considering the country as a whole. In some sections, however, especially where the drought greatly reduced the home food supply as well as cash crops, money for current living probably will be provided many families through benefit payments and subsistence grants in the last half of 1936 and into 1937. For such families there will be little or no choice in spending because the limited relief payments will barely cover such necessities as food.

However, it would seem that farm families in general will have somewhat more money to distribute in 1937 among items of family living, in spite of the fact that farm equipment, farm buildings, and livestock for replenishing herds will doubtless claim a goodly share of the increase in income. Increased cash available for family living may be offset in part by higher prices of food and of some other commodities.

Retrenchments made in family living because of the limited funds available during the depression continue to affect the distribution of increased funds for family use. In view of adjustments already made, it seems probable that increased resources in 1936-37 will go to food, furnishings, household operation, medical care, and clothing, somewhat in the order of naming these items. Major home improvements probably will be made by many families in 1937. In areas where electric lines are being extended and the cost of electricity is being reduced to farm families, some of the increase in income may go for wiring, electric service, and electrical appliances.

The extent and character of home food-production programs will continue to receive attention in 1937. Home production of fuel and certain other goods may decline.

Greater use of cooperative purchasing associations is indicated by the fact that both retail and wholesale organizations have increased in number and in size of business in 1936. This trend probably will continue into 1937. Various governmental agencies will continue to work for consumer protection and to publish material for consumer education in 1937. The demand for information of this kind is on the increase.

#### Farm Income Continues to Increase

The upward trend in the gross cash income received from agriculture, begun in 1933, is continuing in the calendar year 1936. This is true for the United States as a whole even though the severe drought of the summer of 1936 devastated crops and pastures in a large area. While the effects of the drought on farm income in some regions probably will be evidenced in reduced supplies of crops for sale in the first half of next year and smaller livestock supplies in 1937, it is expected that farm income in 1937 for the United States as a whole will continue the upward trend of 1933-36.

Preliminary estimates for 1936 indicate a total of approximately \$7,850,000,000 to be received from the sale of farm products and from payments by the Agricultural Adjustment Administration. This figure represents an increase of 11 percent over the \$7,090,000,000 received in 1935, and an increase of 81 percent over the low point reached in 1932.



Farm-Family Living - 3

Gross cash income from farm marketings including Government payments, and income available for operators' labor, capital, and management, United States, 1924-1936

| Year | Gross cash income | Cash available for operators' labor, capital, and management | Year | Gross cash income | Cash available for operators' labor, capital, and management |
|------|-------------------|--|------|-------------------|--|
|      | Million dollars   | Million dollars  |      | Million dollars   | Million dollars  |
| 1924 | 9,785             | 5,799  | 1931 | 5,899             | 2,393  |
| 1925 | 10,324            | 6,134  | 1932 | 4,328             | 1,492  |
| 1926 | 9,993             | 5,520  | 1933 | 5,117             | 2,683  |
| 1927 | 10,016            | 5,637  | 1934 | 6,348             | 3,467  |
| 1928 | 10,289            | 5,596  | 1935 | 7,090             | 4,538  |
| 1929 | 10,479            | 5,669  | 1936 | 17,850            | -  |
| 1930 | 8,451             | 3,863  |      |                   |  |

1/ Preliminary.

The improvement in income in the first half of 1936 over the corresponding period of 1935 reflected a larger volume of farm products marketed, together with the higher prices received for meat animals, dairy products, and fruits. The improvement in income during the second half of 1936 is reflecting chiefly the higher prices of nearly all groups of farm products, together with the considerably higher marketings of meat animals. Payments by the Agricultural Adjustment Administration to farmers will be substantially smaller in 1936 than in 1935.

The regional distribution of the increases in cash receipts from the sale of farm products in 1936 is somewhat different from last year. In 1935, the largest income gain occurred in the East North Central States, while the South Atlantic States showed no gain. So far in 1936 the increase has been largest in the West North Central States. This increase is due in part to the higher price levels for grain and livestock, together with the greater volume of marketings of meat animals. There probably was some liquidation of livestock in consequence of the drought. Substantial gains are also expected in 1936 in most of the other regions, with probably a more moderate gain in the South Central States. Cash receipts from farm marketings in the first 8 months of 1936 were larger in every State except Kentucky and South Carolina than in the same period of 1935. However, the smaller Government payments in the first 8 months of 1936 offset the gains in income from farm marketings in North Carolina and most of the South Central States. Changes in regional income from farm marketings and Government payments in the first 8 months of 1936 as compared with the same period in 1935 appear on the following page.

## Farm-Family Living - 4

Percentage increase in income from farm marketings and Government payments, the first 8 months of 1936 compared with the first 8 months of 1935, by regions

| Region                     | Percentage increase | Region                     | Percentage increase |
|----------------------------|---------------------|----------------------------|---------------------|
| North Atlantic States..... | 15                  | South Atlantic States..... | 10                  |
| East North Central States. | 17                  | South Central States.....  | -2                  |
| West North Central States. | 21                  | Western States.....        | 15                  |

### Outside Income Important

Many farm families are continuing in 1936 to supplement their cash farm income through earnings from employment away from the farm. The 1935 farm census showed that 30.5 percent of all farm operators spent some of their time working for pay off the farm during 1934, the total time so spent amounting to more than 200,000,000 days. If this time were valued at \$1.50 per day, the average rate of wages paid by farmers for help without board in 1934, the income obtained by such outside work would amount to at least \$300,000,000. Probably the earnings amount to more than this estimated figure, inasmuch as 71 percent of the time was spent in nonagricultural work which ordinarily pays a higher rate of wages than is paid for farm help, and since some of this work also involved a return for use of the operators' farm equipment. In 1934, the inclusion of these estimates of earnings for work off the farm would have increased the cash income available to farm operators from 10 to 20 percent.

In 1936-37, a substantial amount will be paid by the Government to farm families in return for work on WPA projects, or as direct relief. Incomes of many families in drought-stricken areas have been cut so drastically that in the latter half of 1936 and into 1937 large numbers will be dependent on direct or work relief.

Some farm families also obtain income from miscellaneous sources, such as real estate and other investments, tourists, boarders, and from the sale of handicraft articles and prepared food items. As yet, there are no data for estimating the amount so received. Although the largest part of the income received by farmers comes directly from farm operation, income from earnings away from the farm and from sources just mentioned is important. Many families will continue in 1937 to supplement farm income by these various means.

### More Cash for Family Living

In 1936 there will be an increase in income available for family use, considering the average for the United States. The gain over 1935 in the total cash available for farm operators' labor, capital, and management is due in large part to a probable increase of approximately \$760,000,000 in

cash from farm marketings in 1936. The higher prices farmers are paying for commodities used in production are offset to some extent by the smaller expenditures accompanying the smaller crops of 1936. Lower interest rates and refinancing under longer amortization plans are likely, in 1936, to improve still further the farmers' situation with regard to yearly debt payments.

How much of the increase in cash available from farming the country over will be devoted to family living is difficult to estimate. There is evidence that the years 1934-36 have witnessed some restocking of household inventories. Farmers' expenditures for machinery, automobiles, building materials, and other capital equipment have increased sharply in the last 2 years, but the condition of farm equipment, especially buildings, is still well below normal. Particularly in the West North Central States, the liquidation of livestock brought about by the drought will lead many farmers to buy stock next year to build up their herds, and to this extent in the drought area will reduce the cash available for family living. With the upward trend of gross cash income continuing in 1937 the country over, there probably will be increased cash available for farm-family living.

#### Prices Farmers Pay to be Somewhat Higher

Prices paid by farm families for goods used for family living were a little lower in the first 6 months of 1936 than in the corresponding period of 1935 but an upward trend is expected in the last half of 1936. The decline in the first half of 1936 was almost wholly accounted for by a drop of 7 points in the index of food prices from its high point of 121 in June 1935. The remainder of the decline was due to a slight recession in prices of clothing, operating expenses, furniture and furnishings. Retail prices of "building materials for house" in June 1936 were only slightly higher than a year earlier.

Index numbers of prices paid by farmers for commodities  
used for family maintenance

| Item                                 | Month | 1935 | 1936 |
|--------------------------------------|-------|------|------|
| Food.....                            | March | 118  | 114  |
|                                      | June  | 121  | 114  |
| Clothing.....                        | March | 128  | 124  |
|                                      | June  | 124  | 123  |
| Operating expenses.....              | March | 106  | 107  |
|                                      | June  | 106  | 104  |
| Furniture and furnishings..          | March | 137  | 135  |
|                                      | June  | 136  | 134  |
| Building materials for<br>house..... | March | 151  | 153  |
|                                      | June  | 153  | 154  |
| All commodities.....                 | March | 124  | 122  |
|                                      | June  | 124  | 121  |



September 1936 indexes of the U. S. Bureau of Labor Statistics of wholesale prices of fuel and lighting and of house furnishing goods are appreciably higher than a year ago. If changes occur in the retail prices of these articles, it is probable that they will be upward.

Except perhaps for leather goods, no marked change is expected during the next few months in the price of clothing. Wholesale hide and leather prices have been higher during the last year than for any year since 1930. Retail prices of shoes are somewhat higher than a year ago.

Some increase in food prices has taken place in recent months and a further rise is anticipated before the end of 1936. The Bureau of Labor Statistics' retail index for all foods for September 15, 1936, was 5.2 percent higher than for the corresponding period one year earlier. Their indexes for dairy products and fruits and vegetables are now much higher than at this time last year. During November and December a seasonal price advance may be expected in dairy products, eggs, and some fruits and vegetables, but in all probability a downward trend in prices of dairy products and eggs will occur from January to late spring. Apples and potatoes probably have reached their seasonal low price, and an upward trend in price of these products until early summer may be expected. Meat prices during the first half of 1937 probably will be about the same as in the corresponding period of 1936, but in the second half of 1937, they will average higher. Prices of pork products may show about the usual seasonal decline from now until the end of the year, after which a considerable advance is probable from February to April, followed by some seasonal decline until midsummer. However, the seasonal decline in the price of pork products in the late spring and early summer of 1937 may be less than usual because of the reduced supply available and because of improved consumer-purchasing power.

#### Adjusting Family Expenditures

Yearly per capita expenditures for farm-family living are low, usually falling between \$75 and \$200 (1935 price levels). However, only part of the necessary goods and services must be purchased; some can be home-produced. Even with rising cash incomes in 1936 and 1937, the family must still decide how it can best use its cash and other resources.

Retrenchments in expenditures during the last few years when incomes were extremely low have considerable bearing on the probable distribution of increased funds for family living in 1936-37. One of the first adjustments that many farm families made to the depression was to purchase less food (often of lower quality) and less, in particular, of the highly-processed foods, as baked and canned goods. To compensate for this reduction, they consumed more farm-furnished and home-processed goods. Both in 1934 and 1935, however, account-book summaries show that expense for food took a large share of the increased cash available for family living. As yet, this increase in food purchasing does not seem to be accompanied by any lessening in the consumption of farm-furnished food.



In view of adjustments recently made in the purchase of items other than food, it seems probable that the increase in income of many families in 1936-37 will go to furnishings and household operation, education, medical care, and clothing. The order of naming these items probably is in line with their urgency of demand for many farm families, but the most immediate needs of any individual family depend, of course, on the purchasing adjustments of the recent past, and on special circumstances or emergencies.

In 1937, more farm families probably will make major improvements in housing such as installing bathroom equipment or making structural alterations or additions to the house. Stimulated by the Government rural electrification program, the electrification of farms has continued to show marked progress. According to the Edison Electric Institute, more farms were connected to electric lines during the first 6 months of 1936 than in any 12-month period since 1929. Over 70,000 farms were given electric service from January to June of this year, bringing the total of electrically-connected farms up to 860,000. If progress continues at the present rate there might easily be 1,000,000 electrified farms in 1937. In areas where electric lines are being extended, many farm families in 1936-37 will devote a larger amount of the cash income to wiring and the purchase of electrical appliances.

#### Food and Fuel from the Farm

Farm-furnished food comprises from two-thirds to one-half of the total value of food (valued at prices farmers would have paid if they had purchased food of similar quality and in similar quantity from neighbors or at stores, prices between those at the farm and at retail outlets). Since many of the foods needed for nutritionally superior diets can be home-produced in most sections of the country, the extent and character of the home-production program should continue to receive attention in 1937. Fully adequate diets usually include more tomatoes, more leafy, green and yellow vegetables, more milk, eggs, and lean meat than others, but about the same quantities of bread and cereals, potatoes, fats, and sugars. Failure of home-production programs on account of the widespread drought means that many families who normally produce a large share of a better-than-average food supply will, until the growing season of 1937, depend to a greater extent than usual on purchased food.

The chief item other than food furnished by the farm for family use is fuel. From general observation and recent annual reports of extension agents, it would seem that there is on the whole a lessening of home-production of fuel for family use as income increases. This tendency toward decreased home-production of certain goods probably will continue in 1937.

### Furthering Consumer Interests

With cash income and consumer purchasing power on the increase, established cooperative purchasing associations and consumers' cooperatives have experienced, along with other agencies, a rapid growth in their volume of business during the last few years. Many new local retail associations have been organized in both rural and urban districts. Likewise, cooperative wholesale organizations have increased, in both numbers and size of business during 1936. Increased earnings and assets and greater services for members have been the result. This trend in cooperative purchasing bids well to continue in 1937.

The 1936 survey made by the Farm Credit Administration shows that approximately 2,000 associations were engaged in purchasing supplies cooperatively for their members. Although these associations are primarily interested in handling farm supplies used in production, they also handle some products used for family living. Of the associations included in this survey, 45 percent of this number handled petroleum products; 23 percent, flour and groceries; 16 percent, general merchandise; 12 percent, coal; and 2 percent, clothing.

Cooperative buying and the pooling of food orders probably will be used to obtain price concessions in the drought-stricken areas where cash available for family living is extremely low. In some states, assistance may be given by some governmental agencies to see that necessary supplies are available for purchase when the monthly subsistence grants and rehabilitation loans are received.

In view of the notably lower health status of low-income families, there is considerable interest in furthering plans for securing preventive and curative medical service on a subscription or a cooperative basis.

Various divisions of the Government service continue to serve the consumers' interests and to publish material for consumer education. The Consumers' Counsel of the Agricultural Adjustment Administration will in 1937, in addition to publishing the Consumers' Guide bi-weekly, develop programs, exhibits, and reading matter for consumer study groups. The Counsel is now organizing special clip-sheet services on consumer news for cooperative societies, for women's magazines and other periodicals. The Bureau of Home Economics which serves consumer interests in many ways will be adding in 1937 to its list of publications on quality guides for consumer buying and continuing to publish information basic to consumer choices. The Bureau of Agricultural Economics is working to further the use of standardized grades for food in retail markets. The Consumers' Project of the U. S. Department of Labor and other governmental agencies are preparing various types of economic information of help to consumer-buyers. The demand for material of these kinds will doubtless increase in 1937.